

WEBVTT

NOTE duration:"01:29:49"

NOTE recognizability:0.752

NOTE language:en-us

NOTE Confidence: 0.7206238525

00:00:00.000 --> 00:00:02.130 I'm doctor Trikini, one of the

NOTE Confidence: 0.7206238525

00:00:02.130 --> 00:00:04.040 medical oncologists at Yale and Co.

NOTE Confidence: 0.7206238525

00:00:04.040 --> 00:00:06.278 Director of the electoral cancer program.

NOTE Confidence: 0.7206238525

00:00:06.280 --> 00:00:08.247 Here I'm going to be talking about

NOTE Confidence: 0.7206238525

00:00:08.247 --> 00:00:10.007 some of the medical oncology

NOTE Confidence: 0.7206238525

00:00:10.007 --> 00:00:11.715 aspects of rectal cancer.

NOTE Confidence: 0.7206238525

00:00:11.720 --> 00:00:14.360 This is a CME developed dedicated

NOTE Confidence: 0.7206238525

00:00:14.360 --> 00:00:16.210 to coal colorectal cancer.

NOTE Confidence: 0.7206238525

00:00:16.210 --> 00:00:19.030 But given our time that we've

NOTE Confidence: 0.7206238525

00:00:19.030 --> 00:00:21.119 allowed it for this session,

NOTE Confidence: 0.7206238525

00:00:21.120 --> 00:00:22.800 we've decided to focus on rectal

NOTE Confidence: 0.7206238525

00:00:22.800 --> 00:00:24.819 cancer so that we can be focused.

NOTE Confidence: 0.7206238525

00:00:24.820 --> 00:00:26.300 So I'll be speaking.

NOTE Confidence: 0.7206238525

00:00:26.300 --> 00:00:28.150 We have doctor Kimberly Jihong  
NOTE Confidence: 0.7206238525

00:00:28.150 --> 00:00:30.377 from radiation oncology and and.  
NOTE Confidence: 0.7206238525

00:00:30.380 --> 00:00:32.768 After becoming ready from colorectal surgery  
NOTE Confidence: 0.7206238525

00:00:32.768 --> 00:00:36.248 and as we go through each presentation,  
NOTE Confidence: 0.7206238525

00:00:36.250 --> 00:00:38.470 so introduce themselves as well.  
NOTE Confidence: 0.7206238525

00:00:38.470 --> 00:00:40.325 So I'm going to start out again  
NOTE Confidence: 0.7206238525

00:00:40.325 --> 00:00:41.851 talking about the medical oncology  
NOTE Confidence: 0.7206238525

00:00:41.851 --> 00:00:45.490 aspects of of rectal cancer.  
NOTE Confidence: 0.7206238525

00:00:45.490 --> 00:00:48.796 And we'll we'll a lot about  
NOTE Confidence: 0.7206238525

00:00:48.796 --> 00:00:51.326 30 patients and 30 patients,  
NOTE Confidence: 0.7206238525

00:00:51.330 --> 00:00:54.090 30 minutes per per topic.  
NOTE Confidence: 0.7206238525

00:00:54.090 --> 00:00:55.896 Again, medical oncology,  
NOTE Confidence: 0.7206238525

00:00:55.896 --> 00:00:57.702 radiation oncology and  
NOTE Confidence: 0.7206238525

00:00:57.702 --> 00:00:59.508 and colorectal surgery,  
NOTE Confidence: 0.7206238525

00:00:59.510 --> 00:01:02.296 and they'll be time for questions that  
NOTE Confidence: 0.7206238525

00:01:02.296 --> 00:01:05.390 can be answered into the chat or could

NOTE Confidence: 0.7206238525

00:01:05.390 --> 00:01:09.230 certainly be addressed directly to us.

NOTE Confidence: 0.7206238525

00:01:09.230 --> 00:01:12.120 So first I'm going to talk about the role of

NOTE Confidence: 0.7206238525

00:01:12.193 --> 00:01:15.085 total neoadjuvant therapy for rectal cancer.

NOTE Confidence: 0.7206238525

00:01:15.090 --> 00:01:17.500 How does totally odgen therapy,

NOTE Confidence: 0.7206238525

00:01:17.500 --> 00:01:19.812 sometimes abbreviated as TNT,

NOTE Confidence: 0.7206238525

00:01:19.812 --> 00:01:21.546 compared to standard

NOTE Confidence: 0.7206238525

00:01:21.546 --> 00:01:22.702 preoperative chemoradiotherapy,

NOTE Confidence: 0.7206238525

00:01:22.710 --> 00:01:26.890 which has been done since 2004?

NOTE Confidence: 0.7206238525

00:01:26.890 --> 00:01:29.248 And which chemotherapy regimen to choose?

NOTE Confidence: 0.7206238525

00:01:29.250 --> 00:01:29.554 Potentially,

NOTE Confidence: 0.7206238525

00:01:29.554 --> 00:01:31.682 if we're going to use a total

NOTE Confidence: 0.7206238525

00:01:31.682 --> 00:01:32.790 neoadjuvant therapy approach,

NOTE Confidence: 0.7206238525

00:01:32.790 --> 00:01:33.232 and also,

NOTE Confidence: 0.7206238525

00:01:33.232 --> 00:01:35.000 we'll then spend a little bit of time

NOTE Confidence: 0.7206238525

00:01:35.049 --> 00:01:37.275 talking about the role of immunotherapy

NOTE Confidence: 0.7206238525

00:01:37.275 --> 00:01:38.388 for microsatellite instability,  
NOTE Confidence: 0.7206238525

00:01:38.390 --> 00:01:39.380 high rectal cancer,  
NOTE Confidence: 0.7206238525

00:01:39.380 --> 00:01:42.776 a small subset of patients, but that may.  
NOTE Confidence: 0.7206238525

00:01:42.776 --> 00:01:45.104 This may have important  
NOTE Confidence: 0.7206238525

00:01:45.110 --> 00:01:48.410 implications for for outcomes.  
NOTE Confidence: 0.7206238525

00:01:48.410 --> 00:01:50.640 So.  
NOTE Confidence: 0.7206238525

00:01:50.640 --> 00:01:53.650 Rectal cancer has been treated  
NOTE Confidence: 0.7206238525

00:01:53.650 --> 00:01:55.456 traditionally with chemoradiotherapy,  
NOTE Confidence: 0.7206238525

00:01:55.460 --> 00:01:57.080 followed by surgery,  
NOTE Confidence: 0.7206238525

00:01:57.080 --> 00:02:00.053 followed by adjuvant chemotherapy in the  
NOTE Confidence: 0.7206238525

00:02:00.053 --> 00:02:03.210 United States from from the early 2000s.  
NOTE Confidence: 0.7206238525

00:02:03.210 --> 00:02:06.374 This is based on the sour trial  
NOTE Confidence: 0.7206238525

00:02:06.374 --> 00:02:08.800 which firmly placed neoadjuvant  
NOTE Confidence: 0.7206238525

00:02:08.800 --> 00:02:11.176 chemoradiotherapy as a standard of care,  
NOTE Confidence: 0.7206238525

00:02:11.180 --> 00:02:13.126 and again we typically used in the  
NOTE Confidence: 0.7206238525

00:02:13.126 --> 00:02:14.616 United States at least chemotherapy

NOTE Confidence: 0.7206238525

00:02:14.616 --> 00:02:16.416 as an adjuvant in the setting

NOTE Confidence: 0.7206238525

00:02:16.416 --> 00:02:18.379 and in certain parts of Europe.

NOTE Confidence: 0.7206238525

00:02:18.380 --> 00:02:18.968 Of course,

NOTE Confidence: 0.7206238525

00:02:18.968 --> 00:02:20.438 adjuvant therapy is more controversial,

NOTE Confidence: 0.7206238525

00:02:20.440 --> 00:02:21.410 but in the United States.

NOTE Confidence: 0.7206238525

00:02:21.410 --> 00:02:23.815 Currently considered standard of care

NOTE Confidence: 0.7206238525

00:02:23.815 --> 00:02:27.668 for any clinical T3 or N1 rectal cancer,

NOTE Confidence: 0.7206238525

00:02:27.670 --> 00:02:29.890 but over the last several

NOTE Confidence: 0.7206238525

00:02:29.890 --> 00:02:31.666 years for various reasons,

NOTE Confidence: 0.7206238525

00:02:31.670 --> 00:02:34.661 which will which will cover total

NOTE Confidence: 0.7206238525

00:02:34.661 --> 00:02:38.316 new advance therapy has become.

NOTE Confidence: 0.7206238525

00:02:38.320 --> 00:02:40.176 A new approach, perhaps?

NOTE Confidence: 0.7206238525

00:02:40.176 --> 00:02:42.496 And there's four contemporary studies,

NOTE Confidence: 0.7206238525

00:02:42.500 --> 00:02:45.158 5 perhaps before they've been published.

NOTE Confidence: 0.7206238525

00:02:45.160 --> 00:02:47.320 Those four studies that have been

NOTE Confidence: 0.7206238525

00:02:47.320 --> 00:02:50.059 in dark color here versus the Oprah  
NOTE Confidence: 0.7206238525

00:02:50.059 --> 00:02:52.094 study that offers study rather  
NOTE Confidence: 0.7206238525

00:02:52.100 --> 00:02:54.886 that is not yet published but has  
NOTE Confidence: 0.7206238525

00:02:54.886 --> 00:02:57.380 had some prelim data presented.  
NOTE Confidence: 0.7206238525

00:02:57.380 --> 00:02:58.780 I'm not going to focus on that study.  
NOTE Confidence: 0.7206238525

00:02:58.780 --> 00:03:02.280 That's a study focused on the  
NOTE Confidence: 0.7206238525

00:03:02.280 --> 00:03:04.480 potential organ.  
NOTE Confidence: 0.7206238525

00:03:04.480 --> 00:03:06.640 Well, the.  
NOTE Confidence: 0.7206238525

00:03:06.640 --> 00:03:07.984 Analyzing organ preservation,  
NOTE Confidence: 0.7206238525

00:03:07.984 --> 00:03:11.120 so analyzing a watchful way to approach.  
NOTE Confidence: 0.7206238525

00:03:11.120 --> 00:03:13.059 But so we have the protest 23  
NOTE Confidence: 0.7206238525

00:03:13.059 --> 00:03:15.009 study the RAPIDO study the seller  
NOTE Confidence: 0.7206238525

00:03:15.009 --> 00:03:16.774 studying the Polish two study.  
NOTE Confidence: 0.7206238525

00:03:16.780 --> 00:03:18.558 I'll focus on the first three and  
NOTE Confidence: 0.7206238525

00:03:18.558 --> 00:03:20.174 and Doctor Johann will talk about  
NOTE Confidence: 0.7206238525

00:03:20.174 --> 00:03:21.514 some of the radiation aspects

NOTE Confidence: 0.7206238525

00:03:21.514 --> 00:03:23.324 of these studies and as well as

NOTE Confidence: 0.7206238525

00:03:23.324 --> 00:03:24.296 the Polish two study.

NOTE Confidence: 0.7206238525

00:03:24.300 --> 00:03:26.967 I don't have any slides about that.

NOTE Confidence: 0.7206238525

00:03:26.970 --> 00:03:30.757 So the rapid study made a splash

NOTE Confidence: 0.7206238525

00:03:30.757 --> 00:03:32.380 at ASCO last.

NOTE Confidence: 0.698702397272727

00:03:32.380 --> 00:03:35.292 We'll ask the 2020 so a couple of

NOTE Confidence: 0.698702397272727

00:03:35.292 --> 00:03:38.270 years ago now and this is a study

NOTE Confidence: 0.698702397272727

00:03:38.270 --> 00:03:42.400 that tried to tried to look at.

NOTE Confidence: 0.698702397272727

00:03:42.400 --> 00:03:44.736 The the benefit of totally adds in therapy.

NOTE Confidence: 0.698702397272727

00:03:44.740 --> 00:03:47.436 But it also tried to look at how short

NOTE Confidence: 0.698702397272727

00:03:47.436 --> 00:03:49.580 course ready up there he might play a

NOTE Confidence: 0.698702397272727

00:03:49.646 --> 00:03:51.816 role in the total nail agent approach.

NOTE Confidence: 0.698702397272727

00:03:51.820 --> 00:03:54.280 So it was a study that was sort of trying

NOTE Confidence: 0.698702397272727

00:03:54.345 --> 00:03:56.689 to answer 2 questions at the same time,

NOTE Confidence: 0.698702397272727

00:03:56.690 --> 00:03:59.558 which always makes it difficult to

NOTE Confidence: 0.698702397272727

00:03:59.558 --> 00:04:02.200 really interpret the the results.  
NOTE Confidence: 0.698702397272727

00:04:02.200 --> 00:04:03.750 So patients were randomized to  
NOTE Confidence: 0.698702397272727

00:04:03.750 --> 00:04:05.840 either the standard of care approach,  
NOTE Confidence: 0.698702397272727

00:04:05.840 --> 00:04:09.044 so this would be long course close to six  
NOTE Confidence: 0.698702397272727

00:04:09.044 --> 00:04:12.138 weeks of Chemoradiotherapy followed by a.  
NOTE Confidence: 0.698702397272727

00:04:12.140 --> 00:04:14.065 One month period of recovery  
NOTE Confidence: 0.698702397272727

00:04:14.065 --> 00:04:15.990 and and and surgical planning,  
NOTE Confidence: 0.698702397272727

00:04:15.990 --> 00:04:18.838 surgery, and adjuvant chemotherapy.  
NOTE Confidence: 0.698702397272727

00:04:18.838 --> 00:04:22.861 But important to note that the  
NOTE Confidence: 0.698702397272727

00:04:22.861 --> 00:04:26.088 chemotherapy optional so this is a study,  
NOTE Confidence: 0.698702397272727

00:04:26.090 --> 00:04:28.386 a Dutch study and again in Europe.  
NOTE Confidence: 0.698702397272727

00:04:28.390 --> 00:04:29.750 Chemotherapy is not always done  
NOTE Confidence: 0.698702397272727

00:04:29.750 --> 00:04:30.838 in the admin setting,  
NOTE Confidence: 0.698702397272727

00:04:30.840 --> 00:04:32.530 so optional chemotherapy is optional,  
NOTE Confidence: 0.698702397272727

00:04:32.530 --> 00:04:34.399 so we can also see another departure  
NOTE Confidence: 0.698702397272727

00:04:34.399 --> 00:04:36.256 there from what we would do in

NOTE Confidence: 0.698702397272727  
00:04:36.256 --> 00:04:37.762 the United States for the systemic  
NOTE Confidence: 0.698702397272727  
00:04:37.820 --> 00:04:39.164 therapy experimental arm.  
NOTE Confidence: 0.698702397272727  
00:04:39.164 --> 00:04:40.998 Short course radiotherapy, Dr.  
NOTE Confidence: 0.698702397272727  
00:04:40.998 --> 00:04:42.430 Johann will speak about.  
NOTE Confidence: 0.698702397272727  
00:04:42.430 --> 00:04:44.425 You know the the the the reasons  
NOTE Confidence: 0.698702397272727  
00:04:44.425 --> 00:04:46.274 for short parts versus long course  
NOTE Confidence: 0.698702397272727  
00:04:46.274 --> 00:04:48.134 and how to think about that,  
NOTE Confidence: 0.698702397272727  
00:04:48.140 --> 00:04:50.162 but short portrait there we followed  
NOTE Confidence: 0.698702397272727  
00:04:50.162 --> 00:04:51.911 by new adjuvants are totally  
NOTE Confidence: 0.698702397272727  
00:04:51.911 --> 00:04:53.939 adjuvant capox here or full Fox.  
NOTE Confidence: 0.698702397272727  
00:04:53.940 --> 00:04:55.944 The totally by the few platinum  
NOTE Confidence: 0.698702397272727  
00:04:55.944 --> 00:04:57.280 doublet followed by surgery.  
NOTE Confidence: 0.698702397272727  
00:04:57.280 --> 00:05:00.430 So we have.  
NOTE Confidence: 0.698702397272727  
00:05:00.430 --> 00:05:01.876 Several things that are going on  
NOTE Confidence: 0.698702397272727  
00:05:01.876 --> 00:05:03.639 different than maybe what we would do  
NOTE Confidence: 0.698702397272727

00:05:03.639 --> 00:05:04.889 here and under normal circumstances.

NOTE Confidence: 0.698702397272727

00:05:04.890 --> 00:05:06.410 We have short course radiotherapy.

NOTE Confidence: 0.698702397272727

00:05:06.410 --> 00:05:08.282 We have total new adjuvant and then we

NOTE Confidence: 0.698702397272727

00:05:08.282 --> 00:05:09.837 have patients in the the control arm,

NOTE Confidence: 0.698702397272727

00:05:09.840 --> 00:05:11.345 not necessarily getting what we

NOTE Confidence: 0.698702397272727

00:05:11.345 --> 00:05:13.163 would normally give because some of

NOTE Confidence: 0.698702397272727

00:05:13.163 --> 00:05:14.478 them agreement optional therapy so

NOTE Confidence: 0.698702397272727

00:05:14.478 --> 00:05:16.289 that they ended up being about 40%

NOTE Confidence: 0.698702397272727

00:05:16.290 --> 00:05:18.246 of patients in the control group

NOTE Confidence: 0.698702397272727

00:05:18.246 --> 00:05:20.760 that did not get adjuvant therapy.

NOTE Confidence: 0.698702397272727

00:05:20.760 --> 00:05:22.657 So you know some people would argue.

NOTE Confidence: 0.698702397272727

00:05:22.660 --> 00:05:24.406 Maybe this isn't really a fair

NOTE Confidence: 0.698702397272727

00:05:24.406 --> 00:05:26.212 comparison group as a standard of

NOTE Confidence: 0.698702397272727

00:05:26.212 --> 00:05:28.256 care group for for our US patients.

NOTE Confidence: 0.698702397272727

00:05:28.260 --> 00:05:30.042 Maybe a more accurate control comparative

NOTE Confidence: 0.698702397272727

00:05:30.042 --> 00:05:32.005 group would be to restrict the

NOTE Confidence: 0.698702397272727  
00:05:32.005 --> 00:05:33.795 comparison to patients that receive  
NOTE Confidence: 0.698702397272727  
00:05:33.795 --> 00:05:35.580 just received adjuvant chemotherapy,  
NOTE Confidence: 0.698702397272727  
00:05:35.580 --> 00:05:37.785 which perhaps will will be  
NOTE Confidence: 0.698702397272727  
00:05:37.785 --> 00:05:39.549 done in the future.  
NOTE Confidence: 0.698702397272727  
00:05:39.550 --> 00:05:42.076 Teacher really data for this study.  
NOTE Confidence: 0.698702397272727  
00:05:42.080 --> 00:05:44.512 So the initial that this has been presented  
NOTE Confidence: 0.698702397272727  
00:05:44.512 --> 00:05:46.828 and then now published in The Lancet.  
NOTE Confidence: 0.698702397272727  
00:05:46.830 --> 00:05:49.040 So what did what did we see from the outcomes  
NOTE Confidence: 0.698702397272727  
00:05:49.090 --> 00:05:51.295 for patients with total new adjuvant therapy?  
NOTE Confidence: 0.698702397272727  
00:05:51.300 --> 00:05:53.340 So in the blue line here we have the total  
NOTE Confidence: 0.698702397272727  
00:05:53.396 --> 00:05:55.540 new adjuvant therapy group and the red line.  
NOTE Confidence: 0.698702397272727  
00:05:55.540 --> 00:05:56.824 We have the standard of care  
NOTE Confidence: 0.698702397272727  
00:05:56.824 --> 00:05:58.289 group and what do we see here?  
NOTE Confidence: 0.698702397272727  
00:05:58.290 --> 00:06:00.120 And we saw that disease  
NOTE Confidence: 0.698702397272727  
00:06:00.120 --> 00:06:01.218 related treatment failure.  
NOTE Confidence: 0.698702397272727

00:06:01.220 --> 00:06:03.170 So essentially an end point  
NOTE Confidence: 0.698702397272727

00:06:03.170 --> 00:06:04.730 very similar to progression.  
NOTE Confidence: 0.698702397272727

00:06:04.730 --> 00:06:06.490 Free survival is better,  
NOTE Confidence: 0.698702397272727

00:06:06.490 --> 00:06:10.010 so less likely to relapse with total new.  
NOTE Confidence: 0.698702397272727

00:06:10.010 --> 00:06:11.690 Therapy.  
NOTE Confidence: 0.698702397272727

00:06:11.690 --> 00:06:14.707 Hazen ratio of about .75 that's significant.  
NOTE Confidence: 0.698702397272727

00:06:14.710 --> 00:06:17.074 Also distant metastasis reduced  
NOTE Confidence: 0.698702397272727

00:06:17.074 --> 00:06:20.029 with with totally original therapy.  
NOTE Confidence: 0.698702397272727

00:06:20.030 --> 00:06:21.955 Again, it has a ratio of .69.  
NOTE Confidence: 0.698702397272727

00:06:21.960 --> 00:06:23.043 This is significant,  
NOTE Confidence: 0.698702397272727

00:06:23.043 --> 00:06:24.848 so we're seeing overall essentially  
NOTE Confidence: 0.698702397272727

00:06:24.848 --> 00:06:26.868 PFS and and just a metaphysis.  
NOTE Confidence: 0.8746039933333333

00:06:26.870 --> 00:06:28.606 But then when we look at local regional  
NOTE Confidence: 0.8746039933333333

00:06:28.606 --> 00:06:31.430 results, so regional failure no really,  
NOTE Confidence: 0.8746039933333333

00:06:31.430 --> 00:06:33.326 no real difference here with doing  
NOTE Confidence: 0.8746039933333333

00:06:33.326 --> 00:06:34.590 this totally legitimate approach.

NOTE Confidence: 0.8746039933333333  
00:06:34.590 --> 00:06:36.662 So that tells us that the PFS  
NOTE Confidence: 0.8746039933333333  
00:06:36.662 --> 00:06:38.298 benefit essentially starting with F  
NOTE Confidence: 0.8746039933333333  
00:06:38.298 --> 00:06:40.033 benefits primarily being driven by  
NOTE Confidence: 0.8746039933333333  
00:06:40.033 --> 00:06:41.690 affective systemic therapy doing what?  
NOTE Confidence: 0.8746039933333333  
00:06:41.690 --> 00:06:44.780 Expanding it always does eliminating  
NOTE Confidence: 0.8746039933333333  
00:06:44.780 --> 00:06:46.016 micrometastatic disease,  
NOTE Confidence: 0.8746039933333333  
00:06:46.020 --> 00:06:48.696 but what does to really become  
NOTE Confidence: 0.8746039933333333  
00:06:48.696 --> 00:06:50.480 the standard of care?  
NOTE Confidence: 0.8746039933333333  
00:06:50.480 --> 00:06:51.635 We need to see something  
NOTE Confidence: 0.8746039933333333  
00:06:51.635 --> 00:06:52.559 like a survival benefit.  
NOTE Confidence: 0.8746039933333333  
00:06:52.560 --> 00:06:54.037 So did we see anything like that?  
NOTE Confidence: 0.8746039933333333  
00:06:54.040 --> 00:06:56.400 No, we absolutely did not in the study,  
NOTE Confidence: 0.8746039933333333  
00:06:56.400 --> 00:06:58.767 so this is overall survival and you can see  
NOTE Confidence: 0.8746039933333333  
00:06:58.767 --> 00:07:00.857 these curves are very clearly negative.  
NOTE Confidence: 0.8746039933333333  
00:07:00.860 --> 00:07:02.561 I think if there was maybe some  
NOTE Confidence: 0.8746039933333333

00:07:02.561 --> 00:07:03.980 more separation of these curves,  
NOTE Confidence: 0.8746039933333333

00:07:03.980 --> 00:07:05.336 one could argue with more follow  
NOTE Confidence: 0.8746039933333333

00:07:05.336 --> 00:07:06.240 up from the study.  
NOTE Confidence: 0.8746039933333333

00:07:06.240 --> 00:07:07.820 We see a PFS benefit.  
NOTE Confidence: 0.8746039933333333

00:07:07.820 --> 00:07:09.996 This is a disease that has can stay  
NOTE Confidence: 0.8746039933333333

00:07:09.996 --> 00:07:11.796 controlled for a long time when it's.  
NOTE Confidence: 0.8746039933333333

00:07:11.800 --> 00:07:12.074 Pathetic,  
NOTE Confidence: 0.8746039933333333

00:07:12.074 --> 00:07:13.444 maybe with more follow up  
NOTE Confidence: 0.8746039933333333

00:07:13.444 --> 00:07:15.010 we see a survival benefit,  
NOTE Confidence: 0.8746039933333333

00:07:15.010 --> 00:07:16.610 but in this case I think it's going  
NOTE Confidence: 0.8746039933333333

00:07:16.610 --> 00:07:18.764 to be pretty hard to show that even  
NOTE Confidence: 0.8746039933333333

00:07:18.764 --> 00:07:20.150 how overlapping these curves are.  
NOTE Confidence: 0.8746039933333333

00:07:20.150 --> 00:07:23.510 See this system has a ratio of .92  
NOTE Confidence: 0.8746039933333333

00:07:23.510 --> 00:07:27.800 with POS 0.59, so no survival benefit.  
NOTE Confidence: 0.8746039933333333

00:07:27.800 --> 00:07:29.676 What about the past year rate and  
NOTE Confidence: 0.8746039933333333

00:07:29.676 --> 00:07:31.707 I've just made a big splash as well.

NOTE Confidence: 0.8746039933333333  
00:07:31.710 --> 00:07:33.929 I think people get excited about the  
NOTE Confidence: 0.8746039933333333  
00:07:33.929 --> 00:07:36.756 past CR rate and I don't think this  
NOTE Confidence: 0.8746039933333333  
00:07:36.756 --> 00:07:39.180 is actually a truly an appropriate  
NOTE Confidence: 0.8746039933333333  
00:07:39.259 --> 00:07:41.650 endpoint to really be be engaging.  
NOTE Confidence: 0.8746039933333333  
00:07:41.650 --> 00:07:43.890 Too much of our.  
NOTE Confidence: 0.8746039933333333  
00:07:43.890 --> 00:07:46.170 Decision making on for the majority  
NOTE Confidence: 0.8746039933333333  
00:07:46.170 --> 00:07:47.690 of patients at least.  
NOTE Confidence: 0.8746039933333333  
00:07:47.690 --> 00:07:48.262 You know,  
NOTE Confidence: 0.8746039933333333  
00:07:48.262 --> 00:07:48.834 for example,  
NOTE Confidence: 0.8746039933333333  
00:07:48.834 --> 00:07:51.210 if we were to delay delay treatment,  
NOTE Confidence: 0.8746039933333333  
00:07:51.210 --> 00:07:53.286 surgical treatment even more after radiation,  
NOTE Confidence: 0.8746039933333333  
00:07:53.290 --> 00:07:54.760 I'm sure we would see even more  
NOTE Confidence: 0.8746039933333333  
00:07:54.760 --> 00:07:55.390 past CR rates,  
NOTE Confidence: 0.8746039933333333  
00:07:55.390 --> 00:07:57.088 but if it's not improving overall  
NOTE Confidence: 0.8746039933333333  
00:07:57.088 --> 00:07:58.430 survival and it's not an,  
NOTE Confidence: 0.8746039933333333

00:07:58.430 --> 00:07:59.954 it's not changing the type of  
NOTE Confidence: 0.8746039933333333

00:07:59.954 --> 00:08:01.694 surgery we do and any statistically  
NOTE Confidence: 0.8746039933333333

00:08:01.694 --> 00:08:03.704 significant chash and past the our  
NOTE Confidence: 0.8746039933333333

00:08:03.704 --> 00:08:05.442 rates are not really super important.  
NOTE Confidence: 0.8746039933333333

00:08:05.442 --> 00:08:06.858 At the end of the day,  
NOTE Confidence: 0.8746039933333333

00:08:06.860 --> 00:08:08.582 in my opinion and where we  
NOTE Confidence: 0.8746039933333333

00:08:08.582 --> 00:08:10.437 haven't seen that with most of  
NOTE Confidence: 0.8746039933333333

00:08:10.437 --> 00:08:12.369 the attribute studies the the the  
NOTE Confidence: 0.8746039933333333

00:08:12.369 --> 00:08:13.899 the different surgeries are.  
NOTE Confidence: 0.8746039933333333

00:08:13.900 --> 00:08:16.096 Same so for the most part,  
NOTE Confidence: 0.8746039933333333

00:08:16.100 --> 00:08:18.500 so that was the RAPIDO study.  
NOTE Confidence: 0.8746039933333333

00:08:18.500 --> 00:08:20.240 What about another short course study?  
NOTE Confidence: 0.8746039933333333

00:08:20.240 --> 00:08:21.824 So this was another study that  
NOTE Confidence: 0.8746039933333333

00:08:21.824 --> 00:08:22.616 was very similar.  
NOTE Confidence: 0.8746039933333333

00:08:22.620 --> 00:08:26.673 So and it's designed so I think helps  
NOTE Confidence: 0.8746039933333333

00:08:26.673 --> 00:08:28.850 make the case for or against you.

NOTE Confidence: 0.8746039933333333  
00:08:28.850 --> 00:08:29.572 Argument therapy.  
NOTE Confidence: 0.8746039933333333  
00:08:29.572 --> 00:08:31.686 Having two studies that that are  
NOTE Confidence: 0.8746039933333333  
00:08:31.686 --> 00:08:33.216 very similar in their design.  
NOTE Confidence: 0.8746039933333333  
00:08:33.220 --> 00:08:35.590 So this is an experimental design  
NOTE Confidence: 0.8746039933333333  
00:08:35.590 --> 00:08:37.675 with the short course radiotherapy  
NOTE Confidence: 0.8746039933333333  
00:08:37.675 --> 00:08:39.399 on the left here.  
NOTE Confidence: 0.8746039933333333  
00:08:39.400 --> 00:08:41.635 Neoadjuvant Kpop for four cycles  
NOTE Confidence: 0.8746039933333333  
00:08:41.635 --> 00:08:44.848 surgery and then adjuvant K pops or two.  
NOTE Confidence: 0.8746039933333333  
00:08:44.850 --> 00:08:47.170 So instead of total neoadjuvant,  
NOTE Confidence: 0.8746039933333333  
00:08:47.170 --> 00:08:49.210 it's mostly newagen,  
NOTE Confidence: 0.8746039933333333  
00:08:49.210 --> 00:08:51.883 mostly total neoadjuvant versus  
NOTE Confidence: 0.8746039933333333  
00:08:51.883 --> 00:08:55.048 the standard of care again.  
NOTE Confidence: 0.8746039933333333  
00:08:55.050 --> 00:08:56.364 Chemoradiotherapy surgery and  
NOTE Confidence: 0.8746039933333333  
00:08:56.364 --> 00:08:58.554 then cabox for six cycles.  
NOTE Confidence: 0.712381153857143  
00:09:00.610 --> 00:09:04.498 And this is actually a noninferiority  
NOTE Confidence: 0.712381153857143

00:09:04.498 --> 00:09:07.050 study and like the other,  
NOTE Confidence: 0.712381153857143

00:09:07.050 --> 00:09:10.997 the study that I just showed not all  
NOTE Confidence: 0.712381153857143

00:09:10.997 --> 00:09:13.238 patients got adjuvant chemotherapy.  
NOTE Confidence: 0.712381153857143

00:09:13.238 --> 00:09:16.638 So actually 25% of both arms didn't  
NOTE Confidence: 0.712381153857143

00:09:16.638 --> 00:09:18.930 get adjuvant chemotherapy and in the  
NOTE Confidence: 0.712381153857143

00:09:19.002 --> 00:09:21.860 study but but all the patients in the  
NOTE Confidence: 0.712381153857143

00:09:21.860 --> 00:09:24.091 experimental arm that the new therapies  
NOTE Confidence: 0.712381153857143

00:09:24.091 --> 00:09:25.918 so that that tells you already as  
NOTE Confidence: 0.712381153857143

00:09:25.918 --> 00:09:27.913 far as systemic therapy goes, the  
NOTE Confidence: 0.712381153857143

00:09:27.913 --> 00:09:29.754 experimental group is receiving more of it.  
NOTE Confidence: 0.712381153857143

00:09:29.760 --> 00:09:32.082 Because because both groups are not  
NOTE Confidence: 0.712381153857143

00:09:32.082 --> 00:09:33.630 all receiving adjuvant chemotherapy.  
NOTE Confidence: 0.712381153857143

00:09:33.630 --> 00:09:35.758 This study was done in China and  
NOTE Confidence: 0.712381153857143

00:09:35.758 --> 00:09:38.160 it was not considered optional.  
NOTE Confidence: 0.712381153857143

00:09:38.160 --> 00:09:39.714 We don't know all the reasons why  
NOTE Confidence: 0.712381153857143

00:09:39.714 --> 00:09:41.069 patients in the control group,

NOTE Confidence: 0.712381153857143  
00:09:41.070 --> 00:09:43.750 for example, didn't get.  
NOTE Confidence: 0.712381153857143  
00:09:43.750 --> 00:09:44.432 Adjuvant chemotherapy,  
NOTE Confidence: 0.712381153857143  
00:09:44.432 --> 00:09:47.160 So what are some of the survival outcomes?  
NOTE Confidence: 0.712381153857143  
00:09:47.160 --> 00:09:50.553 We see the disease free survival again.  
NOTE Confidence: 0.712381153857143  
00:09:50.553 --> 00:09:52.918 Essentially a progression pre survival  
NOTE Confidence: 0.712381153857143  
00:09:52.918 --> 00:09:55.707 end points for patients that are  
NOTE Confidence: 0.712381153857143  
00:09:55.707 --> 00:09:58.448 nonstatic and so we see a statistically  
NOTE Confidence: 0.712381153857143  
00:09:58.448 --> 00:10:00.000 significant technically hazard ratio,  
NOTE Confidence: 0.712381153857143  
00:10:00.000 --> 00:10:02.493 though only .88.  
NOTE Confidence: 0.712381153857143  
00:10:02.493 --> 00:10:06.204 Favoring total neoadjuvant for for  
NOTE Confidence: 0.712381153857143  
00:10:06.204 --> 00:10:07.740 this total neoadjuvant approach.  
NOTE Confidence: 0.712381153857143  
00:10:07.740 --> 00:10:11.466 So that's the same as the the prior study,  
NOTE Confidence: 0.712381153857143  
00:10:11.470 --> 00:10:11.881 right?  
NOTE Confidence: 0.712381153857143  
00:10:11.881 --> 00:10:13.936 Essentially, we're seeing less relapsed.  
NOTE Confidence: 0.712381153857143  
00:10:13.940 --> 00:10:14.858 I suddenly imagine,  
NOTE Confidence: 0.712381153857143

00:10:14.858 --> 00:10:16.694 but in this we are seeing.  
NOTE Confidence: 0.712381153857143

00:10:16.700 --> 00:10:17.284 In contrast,  
NOTE Confidence: 0.712381153857143

00:10:17.284 --> 00:10:19.036 we are seeing an overall survival  
NOTE Confidence: 0.712381153857143

00:10:19.036 --> 00:10:19.620 benefit here,  
NOTE Confidence: 0.712381153857143

00:10:19.620 --> 00:10:21.996 so we're seeing a has a ratio of  
NOTE Confidence: 0.712381153857143

00:10:22.000 --> 00:10:25.220 .67 P value of .033.  
NOTE Confidence: 0.712381153857143

00:10:25.220 --> 00:10:27.680 So unlike the rabbit study,  
NOTE Confidence: 0.712381153857143

00:10:27.680 --> 00:10:29.774 we are seeing a survival benefit  
NOTE Confidence: 0.712381153857143

00:10:29.774 --> 00:10:32.048 with total neoadjuvant for mostly new  
NOTE Confidence: 0.712381153857143

00:10:32.048 --> 00:10:34.088 adjuvant klopps short course radiotherapy  
NOTE Confidence: 0.712381153857143

00:10:34.088 --> 00:10:36.560 compared to long course radiotherapy,  
NOTE Confidence: 0.712381153857143

00:10:36.560 --> 00:10:38.380 surgery and adjuvant K Pops.  
NOTE Confidence: 0.712381153857143

00:10:38.380 --> 00:10:40.930 With that big caveat that.  
NOTE Confidence: 0.712381153857143

00:10:40.930 --> 00:10:42.714 Where comparing patients that  
NOTE Confidence: 0.712381153857143

00:10:42.714 --> 00:10:45.390 essentially only 3/4 of the patients  
NOTE Confidence: 0.712381153857143

00:10:45.458 --> 00:10:46.901 received effective systemic

NOTE Confidence: 0.712381153857143  
00:10:46.901 --> 00:10:49.306 therapy in the control group,  
NOTE Confidence: 0.712381153857143  
00:10:49.310 --> 00:10:51.776 whereas the majority receive it in  
NOTE Confidence: 0.712381153857143  
00:10:51.776 --> 00:10:54.117 the experimental group and you know  
NOTE Confidence: 0.712381153857143  
00:10:54.117 --> 00:10:56.151 you can argue, well, it doesn't.  
NOTE Confidence: 0.712381153857143  
00:10:56.151 --> 00:10:57.986 You know it doesn't matter.  
NOTE Confidence: 0.712381153857143  
00:10:57.990 --> 00:10:59.742 Patients are are able to get it if  
NOTE Confidence: 0.712381153857143  
00:10:59.742 --> 00:11:01.389 you do the totally edging approach  
NOTE Confidence: 0.712381153857143  
00:11:01.389 --> 00:11:03.358 and only a portion of them are  
NOTE Confidence: 0.712381153857143  
00:11:03.358 --> 00:11:05.986 able to do it if if if you do  
NOTE Confidence: 0.712381153857143  
00:11:05.986 --> 00:11:08.004 the standard of care approach I,  
NOTE Confidence: 0.712381153857143  
00:11:08.004 --> 00:11:09.670 I think we need a little bit  
NOTE Confidence: 0.712381153857143  
00:11:09.729 --> 00:11:11.141 more information about who's  
NOTE Confidence: 0.712381153857143  
00:11:11.141 --> 00:11:12.906 not getting touch with therapy.  
NOTE Confidence: 0.712381153857143  
00:11:12.910 --> 00:11:15.016 Because we don't find that three  
NOTE Confidence: 0.712381153857143  
00:11:15.016 --> 00:11:17.578 out of four kind of trial eligible  
NOTE Confidence: 0.712381153857143

00:11:17.578 --> 00:11:19.732 kind of patients are not able  
NOTE Confidence: 0.712381153857143

00:11:19.732 --> 00:11:22.029 to tolerate adjuvant therapy.  
NOTE Confidence: 0.712381153857143

00:11:22.030 --> 00:11:24.094 So a little bit more information  
NOTE Confidence: 0.712381153857143

00:11:24.094 --> 00:11:26.426 I'd like from the the reasoning  
NOTE Confidence: 0.712381153857143

00:11:26.426 --> 00:11:28.636 for lack of engagement therapy.  
NOTE Confidence: 0.712381153857143

00:11:28.640 --> 00:11:32.296 But the other big study in this also.  
NOTE Confidence: 0.712381153857143

00:11:32.300 --> 00:11:34.988 Was presented initially the  
NOTE Confidence: 0.712381153857143

00:11:34.988 --> 00:11:37.048 same ASCO as RAPIDO study.  
NOTE Confidence: 0.712381153857143

00:11:37.048 --> 00:11:40.119 Asked the 2020 yeah so the other big  
NOTE Confidence: 0.712381153857143

00:11:40.119 --> 00:11:42.855 studies produced 23 which was looking  
NOTE Confidence: 0.712381153857143

00:11:42.855 --> 00:11:44.564 at intensifying the chemotherapy  
NOTE Confidence: 0.712381153857143

00:11:44.564 --> 00:11:47.460 to full Fox theory and as a rule,  
NOTE Confidence: 0.712381153857143

00:11:47.460 --> 00:11:49.836 a toxic or expensive or given  
NOTE Confidence: 0.712381153857143

00:11:49.836 --> 00:11:51.420 even convenient treatment might  
NOTE Confidence: 0.712381153857143

00:11:51.488 --> 00:11:53.533 be justified if there's been  
NOTE Confidence: 0.712381153857143

00:11:53.533 --> 00:11:55.578 improvement in overall so revival.

NOTE Confidence: 0.712381153857143  
00:11:55.580 --> 00:11:56.604 On quality of life,  
NOTE Confidence: 0.712381153857143  
00:11:56.604 --> 00:11:58.470 but does these pre survival benefit alone?  
NOTE Confidence: 0.712381153857143  
00:11:58.470 --> 00:11:59.800 It's tough not considered sufficient.  
NOTE Confidence: 0.712381153857143  
00:11:59.800 --> 00:12:02.296 We're actually going to intensify therapy.  
NOTE Confidence: 0.712381153857143  
00:12:02.300 --> 00:12:04.262 So compared to the prior presentations  
NOTE Confidence: 0.712381153857143  
00:12:04.262 --> 00:12:06.251 where we're really kind of just  
NOTE Confidence: 0.712381153857143  
00:12:06.251 --> 00:12:07.806 talking about reordering the therapy  
NOTE Confidence: 0.712381153857143  
00:12:07.806 --> 00:12:09.688 and this we're talking about  
NOTE Confidence: 0.712381153857143  
00:12:09.688 --> 00:12:11.272 reordering and intensifying, right?  
NOTE Confidence: 0.712381153857143  
00:12:11.272 --> 00:12:13.036 So we better we better be able  
NOTE Confidence: 0.712381153857143  
00:12:13.036 --> 00:12:15.062 to show a survival benefit for us  
NOTE Confidence: 0.712381153857143  
00:12:15.062 --> 00:12:16.522 to to comfortably say that  
NOTE Confidence: 0.78675948  
00:12:16.578 --> 00:12:17.722 full Fox theory can  
NOTE Confidence: 0.78675948  
00:12:17.722 --> 00:12:19.152 become a standard of care.  
NOTE Confidence: 0.78675948  
00:12:19.160 --> 00:12:20.920 So what did they do in this study?  
NOTE Confidence: 0.78675948

00:12:20.920 --> 00:12:23.810 They took patients that were  
NOTE Confidence: 0.78675948

00:12:23.810 --> 00:12:26.122 randomized to the typical.  
NOTE Confidence: 0.78675948

00:12:26.130 --> 00:12:28.569 Chemoradiotherapy followed by  
NOTE Confidence: 0.78675948

00:12:28.569 --> 00:12:31.624 surgery followed by chemotherapy.  
NOTE Confidence: 0.78675948

00:12:31.624 --> 00:12:32.238 Interestingly,  
NOTE Confidence: 0.78675948

00:12:32.238 --> 00:12:35.607 six months of chemotherapy here, right?  
NOTE Confidence: 0.78675948

00:12:35.607 --> 00:12:37.389 We would normally be four months  
NOTE Confidence: 0.78675948

00:12:37.389 --> 00:12:39.534 in the United States and then in  
NOTE Confidence: 0.78675948

00:12:39.534 --> 00:12:41.029 the the the experimental arm.  
NOTE Confidence: 0.78675948

00:12:41.030 --> 00:12:43.676 Both fear and off for three months.  
NOTE Confidence: 0.78675948

00:12:43.680 --> 00:12:45.052 Maria therapy long course.  
NOTE Confidence: 0.78675948

00:12:45.052 --> 00:12:48.264 This time in that short course or and  
NOTE Confidence: 0.78675948

00:12:48.264 --> 00:12:51.149 then followed by adjuvant chemotherapy.  
NOTE Confidence: 0.78675948

00:12:51.150 --> 00:12:54.741 So again, that truly shows new adjuvant  
NOTE Confidence: 0.78675948

00:12:54.741 --> 00:12:58.110 but mostly neoadjuvant or half new adjuvant.  
NOTE Confidence: 0.78675948

00:12:58.110 --> 00:12:59.510 In this study, again,

NOTE Confidence: 0.78675948

00:12:59.510 --> 00:13:01.610 how many questions does this study?

NOTE Confidence: 0.78675948

00:13:01.610 --> 00:13:02.610 Kind of trying to answer.

NOTE Confidence: 0.78675948

00:13:02.610 --> 00:13:04.290 It's trying to answer.

NOTE Confidence: 0.78675948

00:13:04.290 --> 00:13:05.130 It's not.

NOTE Confidence: 0.78675948

00:13:05.130 --> 00:13:06.990 It's not asking a question of

NOTE Confidence: 0.78675948

00:13:06.990 --> 00:13:08.230 different types of radiation,

NOTE Confidence: 0.78675948

00:13:08.230 --> 00:13:09.500 so that that that simplifies

NOTE Confidence: 0.78675948

00:13:09.500 --> 00:13:10.770 the design a little bit,

NOTE Confidence: 0.78675948

00:13:10.770 --> 00:13:11.640 but it is.

NOTE Confidence: 0.78675948

00:13:11.640 --> 00:13:13.090 It is looking at slightly

NOTE Confidence: 0.78675948

00:13:13.090 --> 00:13:14.170 different chemotherapy schedule,

NOTE Confidence: 0.78675948

00:13:14.170 --> 00:13:16.270 even in the control group that would

NOTE Confidence: 0.78675948

00:13:16.270 --> 00:13:18.189 normally do more systemic therapy,

NOTE Confidence: 0.78675948

00:13:18.190 --> 00:13:19.590 but I think that's OK.

NOTE Confidence: 0.78675948

00:13:19.590 --> 00:13:21.006 So what do we see in the produce?

NOTE Confidence: 0.78675948

00:13:21.010 --> 00:13:23.550 23 study we saw a past CR rate just to  
NOTE Confidence: 0.78675948

00:13:23.622 --> 00:13:26.296 I think everybody focuses on the number,  
NOTE Confidence: 0.78675948

00:13:26.300 --> 00:13:27.876 so I want to highlight them as well.  
NOTE Confidence: 0.78675948

00:13:27.880 --> 00:13:29.776 Pathologic complete response rate  
NOTE Confidence: 0.78675948

00:13:29.776 --> 00:13:31.342 28% with triplet chemotherapy.  
NOTE Confidence: 0.78675948

00:13:31.342 --> 00:13:33.890 Full Fox series and I have full  
NOTE Confidence: 0.78675948

00:13:33.955 --> 00:13:34.960 Fox series here.  
NOTE Confidence: 0.78675948

00:13:34.960 --> 00:13:36.300 That's what we call it a lot in the United  
NOTE Confidence: 0.78675948

00:13:36.336 --> 00:13:37.680 States is technically a different regimen.  
NOTE Confidence: 0.78675948

00:13:37.680 --> 00:13:38.960 This was actually a full fear or not,  
NOTE Confidence: 0.78675948

00:13:38.960 --> 00:13:39.330 but.  
NOTE Confidence: 0.575433818

00:13:41.420 --> 00:13:43.200 Very obviously the same drugs,  
NOTE Confidence: 0.575433818

00:13:43.200 --> 00:13:47.118 just very similar, slightly modified dosing,  
NOTE Confidence: 0.575433818

00:13:47.120 --> 00:13:49.024 so the pathologic complete  
NOTE Confidence: 0.575433818

00:13:49.024 --> 00:13:51.216 response was 28% versus 12%,  
NOTE Confidence: 0.575433818

00:13:51.216 --> 00:13:53.688 so full Fox full Fox theory

NOTE Confidence: 0.575433818

00:13:53.688 --> 00:13:55.468 short course, long course.

NOTE Confidence: 0.575433818

00:13:55.468 --> 00:13:57.995 It seems like with the total the edge

NOTE Confidence: 0.575433818

00:13:57.995 --> 00:13:59.952 and approaches are complete response

NOTE Confidence: 0.575433818

00:13:59.952 --> 00:14:01.942 that Pathologic complete response rates

NOTE Confidence: 0.575433818

00:14:01.942 --> 00:14:04.382 are pretty consistent at the 20 to 25,

NOTE Confidence: 0.575433818

00:14:04.382 --> 00:14:05.851 maybe to to 30% range.

NOTE Confidence: 0.575433818

00:14:05.851 --> 00:14:07.678 So what do we see in survival

NOTE Confidence: 0.575433818

00:14:07.678 --> 00:14:09.059 outcomes for these patients?

NOTE Confidence: 0.575433818

00:14:09.060 --> 00:14:11.788 So if we look at disease free survival?

NOTE Confidence: 0.575433818

00:14:11.790 --> 00:14:14.022 Three year disease free survival benefit

NOTE Confidence: 0.575433818

00:14:14.022 --> 00:14:16.159 that favors will total new agent.

NOTE Confidence: 0.575433818

00:14:16.160 --> 00:14:20.710 The Fox theory 59% of 76 versus 69%

NOTE Confidence: 0.575433818

00:14:20.710 --> 00:14:22.036 when we look at overall survival.

NOTE Confidence: 0.575433818

00:14:22.040 --> 00:14:23.792 This says that this is not

NOTE Confidence: 0.575433818

00:14:23.792 --> 00:14:24.376 statistically significant,

NOTE Confidence: 0.575433818

00:14:24.380 --> 00:14:26.724 but you can see the cursor separated there.

NOTE Confidence: 0.575433818

00:14:26.730 --> 00:14:28.878 That may change over time for

NOTE Confidence: 0.575433818

00:14:28.878 --> 00:14:30.809 seeing the disease free survival

NOTE Confidence: 0.575433818

00:14:30.809 --> 00:14:32.949 benefit as more time elapses,

NOTE Confidence: 0.575433818

00:14:32.950 --> 00:14:35.326 we may see a survival benefit,

NOTE Confidence: 0.575433818

00:14:35.330 --> 00:14:38.158 but at this time there's clearly not

NOTE Confidence: 0.575433818

00:14:38.158 --> 00:14:39.890 statistically significant survival benefit.

NOTE Confidence: 0.575433818

00:14:39.890 --> 00:14:42.539 But what about?

NOTE Confidence: 0.575433818

00:14:42.540 --> 00:14:44.580 The metastasis free survival,

NOTE Confidence: 0.575433818

00:14:44.580 --> 00:14:46.395 so again 79% versus 72%,

NOTE Confidence: 0.575433818

00:14:46.395 --> 00:14:48.250 so we are doing a better job

NOTE Confidence: 0.575433818

00:14:48.312 --> 00:14:50.058 controlling systemic disease,

NOTE Confidence: 0.575433818

00:14:50.060 --> 00:14:52.360 just like we saw in the rapid of the trial.

NOTE Confidence: 0.575433818

00:14:52.360 --> 00:14:54.754 With this this early use and increased

NOTE Confidence: 0.575433818

00:14:54.754 --> 00:14:56.952 intensity full Fox area and I think

NOTE Confidence: 0.575433818

00:14:56.952 --> 00:14:59.655 that's where the the the hope of using a

NOTE Confidence: 0.575433818

00:14:59.655 --> 00:15:01.617 more intensive treatment like this is,

NOTE Confidence: 0.575433818

00:15:01.620 --> 00:15:04.340 is is the hopefully increase

NOTE Confidence: 0.575433818

00:15:04.340 --> 00:15:05.356 control of micrometastatic disease

NOTE Confidence: 0.575433818

00:15:05.356 --> 00:15:06.880 and care more of those patients.

NOTE Confidence: 0.575433818

00:15:06.880 --> 00:15:08.500 But we did not see that yet in this study.

NOTE Confidence: 0.575433818

00:15:08.500 --> 00:15:11.560 So so.

NOTE Confidence: 0.575433818

00:15:11.560 --> 00:15:13.180 When we talk about intensifying therapy,

NOTE Confidence: 0.575433818

00:15:13.180 --> 00:15:17.428 we want to be really sure that we are.

NOTE Confidence: 0.575433818

00:15:17.430 --> 00:15:20.226 We are being safe about it,

NOTE Confidence: 0.575433818

00:15:20.230 --> 00:15:20.590 right?

NOTE Confidence: 0.575433818

00:15:20.590 --> 00:15:23.110 So how tolerable as whole thought series?

NOTE Confidence: 0.575433818

00:15:23.110 --> 00:15:24.496 So I think about this and kind

NOTE Confidence: 0.575433818

00:15:24.496 --> 00:15:25.827 of four periods of its use here.

NOTE Confidence: 0.575433818

00:15:25.830 --> 00:15:28.438 The neoadjuvant period chemoradiotherapy

NOTE Confidence: 0.575433818

00:15:28.438 --> 00:15:29.090 period,

NOTE Confidence: 0.575433818

00:15:29.090 --> 00:15:30.975 the perioperative period and the  
NOTE Confidence: 0.575433818

00:15:30.975 --> 00:15:32.106 adjuvant chemotherapy period.  
NOTE Confidence: 0.575433818

00:15:32.110 --> 00:15:34.126 So we look at the neoadjuvant period.  
NOTE Confidence: 0.575433818

00:15:34.130 --> 00:15:36.746 Most people got through the six cycles of  
NOTE Confidence: 0.575433818

00:15:36.746 --> 00:15:39.726 folks aren't the full without an issue,  
NOTE Confidence: 0.575433818

00:15:39.726 --> 00:15:42.094 no new safety signals.  
NOTE Confidence: 0.575433818

00:15:42.100 --> 00:15:43.790 Emma radiotherapy period 95% of  
NOTE Confidence: 0.575433818

00:15:43.790 --> 00:15:46.069 patients with teams made it through  
NOTE Confidence: 0.575433818

00:15:46.069 --> 00:15:47.659 the chemoradiotherapy period.  
NOTE Confidence: 0.575433818

00:15:47.660 --> 00:15:49.823 First is 99% of the standard of  
NOTE Confidence: 0.575433818

00:15:49.823 --> 00:15:51.849 care who went straight to it.  
NOTE Confidence: 0.575433818

00:15:51.850 --> 00:15:53.130 80s through period were similar  
NOTE Confidence: 0.575433818

00:15:53.130 --> 00:15:53.898 in both groups,  
NOTE Confidence: 0.575433818

00:15:53.900 --> 00:15:55.826 so I think they checked those  
NOTE Confidence: 0.575433818

00:15:55.826 --> 00:15:57.570 boxes in the perioperative period,  
NOTE Confidence: 0.575433818

00:15:57.570 --> 00:15:59.558 so 92% of the patients that received

NOTE Confidence: 0.575433818

00:15:59.558 --> 00:16:01.197 full box period induction Underwood

NOTE Confidence: 0.575433818

00:16:01.197 --> 00:16:03.745 surgery versus 95 with standard of care.

NOTE Confidence: 0.575433818

00:16:03.750 --> 00:16:05.550 So there is small difference.

NOTE Confidence: 0.575433818

00:16:05.550 --> 00:16:06.591 Postoperative morbidity was

NOTE Confidence: 0.575433818

00:16:06.591 --> 00:16:07.979 similar between the groups,

NOTE Confidence: 0.575433818

00:16:07.980 --> 00:16:09.545 so we're not seeing an

NOTE Confidence: 0.575433818

00:16:09.545 --> 00:16:10.484 increase in complications.

NOTE Confidence: 0.575433818

00:16:10.490 --> 00:16:12.608 We're also not seeing a difference,

NOTE Confidence: 0.575433818

00:16:12.610 --> 00:16:13.540 by the way,

NOTE Confidence: 0.575433818

00:16:13.540 --> 00:16:15.710 in the type of surgery people needed.

NOTE Confidence: 0.575433818

00:16:15.710 --> 00:16:18.294 So if we had hoped that this surgery

NOTE Confidence: 0.575433818

00:16:18.294 --> 00:16:20.849 was going to reduce the rate of APR,

NOTE Confidence: 0.575433818

00:16:20.850 --> 00:16:22.368 etcetera, we were a little bit.

NOTE Confidence: 0.575433818

00:16:22.370 --> 00:16:22.944 Let down,

NOTE Confidence: 0.575433818

00:16:22.944 --> 00:16:24.953 so I think that is important to

NOTE Confidence: 0.575433818

00:16:24.953 --> 00:16:26.952 notice to note even that higher  
NOTE Confidence: 0.575433818

00:16:26.952 --> 00:16:29.123 path the rate didn't translate into  
NOTE Confidence: 0.575433818

00:16:29.123 --> 00:16:30.500 necessary significant reductions  
NOTE Confidence: 0.575433818

00:16:30.500 --> 00:16:32.795 in morbidity from from surgery,  
NOTE Confidence: 0.575433818

00:16:32.800 --> 00:16:35.376 at least in the entire study population.  
NOTE Confidence: 0.575433818

00:16:35.380 --> 00:16:36.820 What about adding chemotherapy?  
NOTE Confidence: 0.575433818

00:16:36.820 --> 00:16:38.620 If you get totally adjuvant,  
NOTE Confidence: 0.575433818

00:16:38.620 --> 00:16:41.116 are you less likely to tolerate  
NOTE Confidence: 0.575433818

00:16:41.116 --> 00:16:42.780 adjuvant chemotherapy at least  
NOTE Confidence: 0.715230942

00:16:42.780 --> 00:16:44.140 to start the adjuvant?  
NOTE Confidence: 0.715230942

00:16:44.140 --> 00:16:45.768 Chemotherapy? The answer was no.  
NOTE Confidence: 0.715230942

00:16:45.768 --> 00:16:47.822 You know 77 versus 79% of patients  
NOTE Confidence: 0.715230942

00:16:47.822 --> 00:16:49.600 were able to start the editing therapy,  
NOTE Confidence: 0.715230942

00:16:49.600 --> 00:16:51.510 but TNT patients ended up  
NOTE Confidence: 0.715230942

00:16:51.510 --> 00:16:52.656 receiving fewer adjuvants.  
NOTE Confidence: 0.715230942

00:16:52.660 --> 00:16:55.294 Cycles, but overall we have cumulative

NOTE Confidence: 0.715230942

00:16:55.294 --> 00:16:57.050 amounts of chemotherapy patients

NOTE Confidence: 0.715230942

00:16:57.115 --> 00:16:59.786 received to the total neovagina

NOTE Confidence: 0.715230942

00:16:59.786 --> 00:17:04.084 from ARM still still received more

NOTE Confidence: 0.715230942

00:17:04.084 --> 00:17:06.748 chemotherapy cumulatively again.

NOTE Confidence: 0.715230942

00:17:06.750 --> 00:17:08.095 About 21% here are patients

NOTE Confidence: 0.715230942

00:17:08.095 --> 00:17:09.869 in the standard of care group

NOTE Confidence: 0.715230942

00:17:09.869 --> 00:17:11.349 did not receive chemotherapy,

NOTE Confidence: 0.715230942

00:17:11.350 --> 00:17:13.860 so you are comparing a group 100% of

NOTE Confidence: 0.715230942

00:17:13.860 --> 00:17:15.855 the whom at least got some systemic

NOTE Confidence: 0.715230942

00:17:15.855 --> 00:17:17.538 therapy and and a control group.

NOTE Confidence: 0.715230942

00:17:17.540 --> 00:17:21.206 Only 79% got effective systemic any

NOTE Confidence: 0.715230942

00:17:21.206 --> 00:17:24.530 level of affective systemic therapy.

NOTE Confidence: 0.715230942

00:17:24.530 --> 00:17:27.114 So if we kind of summarize what the

NOTE Confidence: 0.715230942

00:17:27.114 --> 00:17:29.150 difference is between these three,

NOTE Confidence: 0.715230942

00:17:29.150 --> 00:17:31.490 these three or four trials,

NOTE Confidence: 0.715230942

00:17:31.490 --> 00:17:33.700 so they all had slightly  
NOTE Confidence: 0.715230942

00:17:33.700 --> 00:17:34.584 different eligibility.  
NOTE Confidence: 0.715230942

00:17:34.590 --> 00:17:37.350 Rapido trial actually had the most  
NOTE Confidence: 0.715230942

00:17:37.350 --> 00:17:39.060 advanced tumors and only allowing  
NOTE Confidence: 0.715230942

00:17:39.060 --> 00:17:41.300 clinical test for and two disease.  
NOTE Confidence: 0.715230942

00:17:41.300 --> 00:17:43.946 But they all have very consistent.  
NOTE Confidence: 0.715230942

00:17:43.950 --> 00:17:44.594 Results,  
NOTE Confidence: 0.715230942

00:17:44.594 --> 00:17:48.254 are fairly consistent results they used  
NOTE Confidence: 0.715230942

00:17:48.254 --> 00:17:51.456 in addition to having different stages,  
NOTE Confidence: 0.715230942

00:17:51.456 --> 00:17:52.914 essentially of eligibility.  
NOTE Confidence: 0.715230942

00:17:52.914 --> 00:17:54.858 They all use different.  
NOTE Confidence: 0.715230942

00:17:54.860 --> 00:17:55.943 Types of chemotherapy.  
NOTE Confidence: 0.715230942

00:17:55.943 --> 00:17:57.387 Different durations of chemotherapy,  
NOTE Confidence: 0.715230942

00:17:57.390 --> 00:17:59.455 and it's only in the new agent  
NOTE Confidence: 0.715230942

00:17:59.455 --> 00:18:00.892 period and therefore different  
NOTE Confidence: 0.715230942

00:18:00.892 --> 00:18:02.840 postoperative regimens as well.

NOTE Confidence: 0.715230942

00:18:02.840 --> 00:18:05.495 But they're they're three year

NOTE Confidence: 0.715230942

00:18:05.495 --> 00:18:07.790 overall survival and disease free.

NOTE Confidence: 0.715230942

00:18:07.790 --> 00:18:09.840 Survival are are all are

NOTE Confidence: 0.715230942

00:18:09.840 --> 00:18:11.310 all relatively similar,

NOTE Confidence: 0.715230942

00:18:11.310 --> 00:18:14.034 and comparisons to their control arms

NOTE Confidence: 0.715230942

00:18:14.034 --> 00:18:17.239 with the only overall survival benefit.

NOTE Confidence: 0.715230942

00:18:17.240 --> 00:18:19.460 The clearly demonstrated so far

NOTE Confidence: 0.715230942

00:18:19.460 --> 00:18:22.270 in the in the stellar trial.

NOTE Confidence: 0.715230942

00:18:22.270 --> 00:18:23.650 So.

NOTE Confidence: 0.715230942

00:18:23.650 --> 00:18:24.102 Umm?

NOTE Confidence: 0.715230942

00:18:24.102 --> 00:18:26.814 Is TNT a standard of care

NOTE Confidence: 0.715230942

00:18:26.814 --> 00:18:29.059 or the standard of care?

NOTE Confidence: 0.715230942

00:18:29.060 --> 00:18:34.985 And I I want to say that it's really hard

NOTE Confidence: 0.715230942

00:18:34.985 --> 00:18:39.030 to compare and these these these trials.

NOTE Confidence: 0.715230942

00:18:39.030 --> 00:18:40.350 How do you mix and match?

NOTE Confidence: 0.715230942

00:18:40.350 --> 00:18:42.162 You mix and match full thoughts  
NOTE Confidence: 0.715230942

00:18:42.162 --> 00:18:43.068 with long Horse.  
NOTE Confidence: 0.715230942

00:18:43.070 --> 00:18:45.998 Full fox theory with short course  
NOTE Confidence: 0.715230942

00:18:46.000 --> 00:18:47.820 it becomes a little bit busy and  
NOTE Confidence: 0.715230942

00:18:47.820 --> 00:18:49.682 to think about it and so it's  
NOTE Confidence: 0.715230942

00:18:49.682 --> 00:18:51.212 hard to say that ordering truly  
NOTE Confidence: 0.715230942

00:18:51.268 --> 00:18:52.958 matters for survival benefits when  
NOTE Confidence: 0.715230942

00:18:52.958 --> 00:18:54.916 the TNT groups are getting more  
NOTE Confidence: 0.715230942

00:18:54.916 --> 00:18:56.246 effective systemic therapy and all  
NOTE Confidence: 0.715230942

00:18:56.246 --> 00:18:57.945 the studies because the rate of  
NOTE Confidence: 0.715230942

00:18:57.945 --> 00:18:59.125 adjuvant therapy is underwhelming,  
NOTE Confidence: 0.715230942

00:18:59.130 --> 00:19:01.146 at least for our US patients,  
NOTE Confidence: 0.715230942

00:19:01.150 --> 00:19:02.341 one could argue,  
NOTE Confidence: 0.715230942

00:19:02.341 --> 00:19:02.738 hey,  
NOTE Confidence: 0.715230942

00:19:02.738 --> 00:19:05.635 that is real life and and people  
NOTE Confidence: 0.715230942

00:19:05.635 --> 00:19:08.432 that get a surgery that maybe aren't

NOTE Confidence: 0.715230942

00:19:08.432 --> 00:19:10.819 as likely to be able to tolerate.

NOTE Confidence: 0.715230942

00:19:10.820 --> 00:19:12.692 Affective post of the post treatment

NOTE Confidence: 0.715230942

00:19:12.692 --> 00:19:14.662 surgery and so that it's easier

NOTE Confidence: 0.715230942

00:19:14.662 --> 00:19:16.307 to get into systemic therapy

NOTE Confidence: 0.715230942

00:19:16.307 --> 00:19:17.927 in the neoadjuvant pair period.

NOTE Confidence: 0.715230942

00:19:17.927 --> 00:19:20.356 I think that's one of the arguments

NOTE Confidence: 0.715230942

00:19:20.356 --> 00:19:23.416 in a more and more of the surgical

NOTE Confidence: 0.715230942

00:19:23.416 --> 00:19:24.406 disease pancreatic cancer,

NOTE Confidence: 0.715230942

00:19:24.406 --> 00:19:25.012 for example.

NOTE Confidence: 0.715230942

00:19:25.012 --> 00:19:27.566 But I I think it's a little bit

NOTE Confidence: 0.715230942

00:19:27.566 --> 00:19:28.580 more complex here,

NOTE Confidence: 0.715230942

00:19:28.580 --> 00:19:30.164 because that's not quite the case

NOTE Confidence: 0.715230942

00:19:30.164 --> 00:19:32.199 that we see in our patient population

NOTE Confidence: 0.715230942

00:19:32.199 --> 00:19:34.355 here in the United States that we

NOTE Confidence: 0.715230942

00:19:34.410 --> 00:19:36.192 aren't able to get in affective

NOTE Confidence: 0.715230942

00:19:36.192 --> 00:19:38.304 systemic therapy up to 3040% of the time.

NOTE Confidence: 0.715230942

00:19:38.304 --> 00:19:39.459 It seems a bit extreme,

NOTE Confidence: 0.715230942

00:19:39.460 --> 00:19:40.260 so I think that.

NOTE Confidence: 0.715230942

00:19:40.260 --> 00:19:41.723 One of the contenders here is that

NOTE Confidence: 0.715230942

00:19:41.723 --> 00:19:43.427 these guys are all done outside the US,

NOTE Confidence: 0.715230942

00:19:43.430 --> 00:19:44.700 where the less aggregate therapy

NOTE Confidence: 0.715230942

00:19:44.700 --> 00:19:45.970 is used for rectal cancer.

NOTE Confidence: 0.715230942

00:19:45.970 --> 00:19:47.657 So we may be seeing mainly an

NOTE Confidence: 0.715230942

00:19:47.657 --> 00:19:49.388 effect that one group of patients

NOTE Confidence: 0.715230942

00:19:49.388 --> 00:19:50.968 is getting systemic therapy and

NOTE Confidence: 0.715230942

00:19:50.968 --> 00:19:51.600 one isn't

NOTE Confidence: 0.779020331428571

00:19:51.663 --> 00:19:53.746 in 25% of the time, but in the end.

NOTE Confidence: 0.779020331428571

00:19:53.750 --> 00:19:55.286 For me, the positives outweigh that.

NOTE Confidence: 0.779020331428571

00:19:55.290 --> 00:19:56.698 The potential negatives here,

NOTE Confidence: 0.779020331428571

00:19:56.698 --> 00:19:58.106 and I'm using this,

NOTE Confidence: 0.779020331428571

00:19:58.110 --> 00:19:59.378 I'm using neoadjuvant therapy

NOTE Confidence: 0.779020331428571  
00:19:59.378 --> 00:20:00.963 in the majority of patients,  
NOTE Confidence: 0.779020331428571  
00:20:00.970 --> 00:20:03.287 and certainly I think this is a  
NOTE Confidence: 0.779020331428571  
00:20:03.287 --> 00:20:04.940 finitive care, and if an OS benefit  
NOTE Confidence: 0.779020331428571  
00:20:04.940 --> 00:20:06.429 is shown kind of across the board,  
NOTE Confidence: 0.779020331428571  
00:20:06.430 --> 00:20:08.747 it will become the standard of care.  
NOTE Confidence: 0.779020331428571  
00:20:08.750 --> 00:20:10.520 So I think some of my.  
NOTE Confidence: 0.779020331428571  
00:20:10.520 --> 00:20:12.072 Panelists will focus especially  
NOTE Confidence: 0.779020331428571  
00:20:12.072 --> 00:20:14.012 Doctor Reddy talking about the  
NOTE Confidence: 0.779020331428571  
00:20:14.012 --> 00:20:15.717 surgical benefits of this we'll.  
NOTE Confidence: 0.779020331428571  
00:20:15.720 --> 00:20:18.368 We'll talk about the reduced time to often  
NOTE Confidence: 0.779020331428571  
00:20:18.368 --> 00:20:20.377 reserve reversal of the major advantage,  
NOTE Confidence: 0.779020331428571  
00:20:20.380 --> 00:20:22.550 the possibility of reduced surgical  
NOTE Confidence: 0.779020331428571  
00:20:22.550 --> 00:20:24.720 morbidity for low rectal cancer.  
NOTE Confidence: 0.779020331428571  
00:20:24.720 --> 00:20:26.888 Certainly in selected patients.  
NOTE Confidence: 0.779020331428571  
00:20:26.888 --> 00:20:29.056 Improve disease free survival.  
NOTE Confidence: 0.779020331428571

00:20:29.060 --> 00:20:30.544 Possibility of OS benefit.  
NOTE Confidence: 0.779020331428571

00:20:30.544 --> 00:20:31.657 There's longer follow-up.  
NOTE Confidence: 0.779020331428571

00:20:31.660 --> 00:20:34.404 Certainly in some of these studies like the.  
NOTE Confidence: 0.779020331428571

00:20:34.410 --> 00:20:36.168 Or just stay and we're not  
NOTE Confidence: 0.779020331428571

00:20:36.168 --> 00:20:37.730 going to talk about well,  
NOTE Confidence: 0.779020331428571

00:20:37.730 --> 00:20:39.386 I'm not going to talk about watching me much,  
NOTE Confidence: 0.779020331428571

00:20:39.390 --> 00:20:42.546 but but the possibility of  
NOTE Confidence: 0.779020331428571

00:20:42.546 --> 00:20:43.650 available for watching rate.  
NOTE Confidence: 0.779020331428571

00:20:43.650 --> 00:20:44.322 Of course,  
NOTE Confidence: 0.779020331428571

00:20:44.322 --> 00:20:46.002 with TNT that's not available  
NOTE Confidence: 0.779020331428571

00:20:46.002 --> 00:20:47.453 with without it disadvantages,  
NOTE Confidence: 0.779020331428571

00:20:47.453 --> 00:20:50.554 I think, for a lower rate of  
NOTE Confidence: 0.779020331428571

00:20:50.554 --> 00:20:52.659 therapy completion compared to CRT.  
NOTE Confidence: 0.779020331428571

00:20:52.660 --> 00:20:55.258 Even so, it just it's small.  
NOTE Confidence: 0.779020331428571

00:20:55.260 --> 00:20:56.940 It's delaying tended defended his surgery,  
NOTE Confidence: 0.779020331428571

00:20:56.940 --> 00:20:58.602 which can be important and many

NOTE Confidence: 0.779020331428571

00:20:58.602 --> 00:21:00.080 patients cannot tolerate the long

NOTE Confidence: 0.779020331428571

00:21:00.080 --> 00:21:01.340 duration of systemic therapy.

NOTE Confidence: 0.779020331428571

00:21:01.340 --> 00:21:03.176 For example, studies and produce 23.

NOTE Confidence: 0.779020331428571

00:21:03.180 --> 00:21:05.760 So I think that brings me to my next point,

NOTE Confidence: 0.779020331428571

00:21:05.760 --> 00:21:08.014 that which chemotherapy regimen to you this?

NOTE Confidence: 0.779020331428571

00:21:08.020 --> 00:21:09.436 I think full Cox Cable box

NOTE Confidence: 0.779020331428571

00:21:09.436 --> 00:21:10.820 for at least four months,

NOTE Confidence: 0.779020331428571

00:21:10.820 --> 00:21:12.773 and the majority of patients for the

NOTE Confidence: 0.779020331428571

00:21:12.773 --> 00:21:14.579 total nudging therapy is there's there's.

NOTE Confidence: 0.779020331428571

00:21:14.580 --> 00:21:17.106 There's the approach most widely adopted,

NOTE Confidence: 0.779020331428571

00:21:17.110 --> 00:21:19.958 and I support that.

NOTE Confidence: 0.779020331428571

00:21:19.960 --> 00:21:22.018 Thus can be used for select patients

NOTE Confidence: 0.779020331428571

00:21:22.018 --> 00:21:24.002 that are younger fit where local

NOTE Confidence: 0.779020331428571

00:21:24.002 --> 00:21:26.078 response is more meaningful for surgery,

NOTE Confidence: 0.779020331428571

00:21:26.080 --> 00:21:28.474 but I think there's insufficient evidence

NOTE Confidence: 0.779020331428571

00:21:28.474 --> 00:21:30.760 to recommend this over whole Fox.  
NOTE Confidence: 0.779020331428571

00:21:30.760 --> 00:21:32.975 For for patients and shouldn't  
NOTE Confidence: 0.779020331428571

00:21:32.975 --> 00:21:35.190 necessarily be broadly used yet.  
NOTE Confidence: 0.779020331428571

00:21:35.190 --> 00:21:38.232 So just spend a few minutes  
NOTE Confidence: 0.779020331428571

00:21:38.232 --> 00:21:39.753 talking about the.  
NOTE Confidence: 0.779020331428571

00:21:39.760 --> 00:21:42.168 The role of checkpoint inhibitors for MSI  
NOTE Confidence: 0.779020331428571

00:21:42.168 --> 00:21:44.518 high rectal cancer that is nonmetastatic.  
NOTE Confidence: 0.779020331428571

00:21:44.520 --> 00:21:45.832 This was presented data  
NOTE Confidence: 0.779020331428571

00:21:45.832 --> 00:21:47.472 presented at GIS this year,  
NOTE Confidence: 0.779020331428571

00:21:47.480 --> 00:21:49.000 which I do ultimately think  
NOTE Confidence: 0.779020331428571

00:21:49.000 --> 00:21:50.216 will be practice changing,  
NOTE Confidence: 0.779020331428571

00:21:50.220 --> 00:21:53.139 but small numbers because these are patients,  
NOTE Confidence: 0.779020331428571

00:21:53.140 --> 00:21:55.124 so mismatch repair deficient  
NOTE Confidence: 0.779020331428571

00:21:55.124 --> 00:21:57.604 colorectal cancer in rectal cancer.  
NOTE Confidence: 0.779020331428571

00:21:57.610 --> 00:21:58.578 Excuse me,  
NOTE Confidence: 0.779020331428571

00:21:58.578 --> 00:22:02.468 is is 5 to 10% of of rectal cancer,

NOTE Confidence: 0.779020331428571  
00:22:02.468 --> 00:22:03.936 mostly when syndrome patients.  
NOTE Confidence: 0.779020331428571  
00:22:03.940 --> 00:22:05.820 Important to note that these  
NOTE Confidence: 0.779020331428571  
00:22:05.820 --> 00:22:07.324 patients have chemo resistant  
NOTE Confidence: 0.779020331428571  
00:22:07.324 --> 00:22:10.050 disease and so the the group.  
NOTE Confidence: 0.779020331428571  
00:22:10.050 --> 00:22:13.050 Somewhere else when Kettering evaluated,  
NOTE Confidence: 0.779020331428571  
00:22:13.050 --> 00:22:15.070 giving these patients the checkpoint  
NOTE Confidence: 0.779020331428571  
00:22:15.070 --> 00:22:17.090 inhibitors to taking clinical stage  
NOTE Confidence: 0.779020331428571  
00:22:17.149 --> 00:22:19.032 two or three rectal cancer giving an  
NOTE Confidence: 0.779020331428571  
00:22:19.032 --> 00:22:21.308 anti PD one therapy and then following  
NOTE Confidence: 0.779020331428571  
00:22:21.308 --> 00:22:23.935 them by endoscopy and an MRI to see  
NOTE Confidence: 0.779020331428571  
00:22:23.935 --> 00:22:26.015 if they responded and had responded  
NOTE Confidence: 0.779020331428571  
00:22:26.015 --> 00:22:28.637 or had residual disease and then  
NOTE Confidence: 0.779020331428571  
00:22:28.637 --> 00:22:31.409 patients would go on to the standard.  
NOTE Confidence: 0.779020331428571  
00:22:31.410 --> 00:22:33.002 Emma radiotherapy and surgery,  
NOTE Confidence: 0.779020331428571  
00:22:33.002 --> 00:22:35.966 and we know that the immune checkpoint  
NOTE Confidence: 0.779020331428571

00:22:35.966 --> 00:22:38.496 behaviors are very effective in  
NOTE Confidence: 0.779020331428571

00:22:38.496 --> 00:22:40.994 systemic disease and for various for  
NOTE Confidence: 0.779020331428571

00:22:40.994 --> 00:22:42.849 various reasons that it's certainly  
NOTE Confidence: 0.779020331428571

00:22:42.849 --> 00:22:45.085 been hypothesized for a while that  
NOTE Confidence: 0.779020331428571

00:22:45.085 --> 00:22:47.336 would be even more effective than  
NOTE Confidence: 0.779020331428571

00:22:47.336 --> 00:22:49.286 localized disease because they feel  
NOTE Confidence: 0.779020331428571

00:22:49.286 --> 00:22:51.621 like immune escape and and they'll go,  
NOTE Confidence: 0.779020331428571

00:22:51.621 --> 00:22:53.420 and they certainly went on to show  
NOTE Confidence: 0.704020315454546

00:22:53.474 --> 00:22:57.248 that so that. I just put this slide up  
NOTE Confidence: 0.704020315454546

00:22:57.248 --> 00:22:59.442 to to to mention that they they actually  
NOTE Confidence: 0.704020315454546

00:22:59.442 --> 00:23:01.097 enroll pretty advanced patients too,  
NOTE Confidence: 0.704020315454546

00:23:01.100 --> 00:23:02.829 and they still showed great outcomes here,  
NOTE Confidence: 0.704020315454546

00:23:02.830 --> 00:23:05.342 so almost all the patients were no positive  
NOTE Confidence: 0.704020315454546

00:23:05.342 --> 00:23:07.347 and certainly higher key stage tumors.  
NOTE Confidence: 0.704020315454546

00:23:07.350 --> 00:23:08.772 What did they show when they  
NOTE Confidence: 0.704020315454546

00:23:08.772 --> 00:23:09.483 did endoscopic following?

NOTE Confidence: 0.704020315454546  
00:23:09.490 --> 00:23:11.230 Essentially all these patients,  
NOTE Confidence: 0.704020315454546  
00:23:11.230 --> 00:23:14.378 essentially the either got a New York  
NOTE Confidence: 0.704020315454546  
00:23:14.378 --> 00:23:17.144 complete or complete response within roughly,  
NOTE Confidence: 0.704020315454546  
00:23:17.144 --> 00:23:19.886 you know, six months of starting  
NOTE Confidence: 0.704020315454546  
00:23:19.886 --> 00:23:21.430 immune checkpoint diggers.  
NOTE Confidence: 0.704020315454546  
00:23:21.430 --> 00:23:24.142 What about looking at these these  
NOTE Confidence: 0.704020315454546  
00:23:24.142 --> 00:23:26.460 this radiographically by MRI again?  
NOTE Confidence: 0.704020315454546  
00:23:26.460 --> 00:23:28.075 Almost all of these patients  
NOTE Confidence: 0.704020315454546  
00:23:28.075 --> 00:23:30.050 and this this patient you know,  
NOTE Confidence: 0.704020315454546  
00:23:30.050 --> 00:23:31.590 subsided from analysis that wasn't  
NOTE Confidence: 0.704020315454546  
00:23:31.590 --> 00:23:33.712 on far enough, but all of this.  
NOTE Confidence: 0.704020315454546  
00:23:33.712 --> 00:23:35.500 All the patients analyzed actually got  
NOTE Confidence: 0.704020315454546  
00:23:35.560 --> 00:23:37.460 again a complete clinical response.  
NOTE Confidence: 0.704020315454546  
00:23:37.460 --> 00:23:40.449 So all 11 patients that have been  
NOTE Confidence: 0.704020315454546  
00:23:40.449 --> 00:23:42.035 followed for adequate duration  
NOTE Confidence: 0.704020315454546

00:23:42.035 --> 00:23:44.345 to be together data analyzed had  
NOTE Confidence: 0.704020315454546

00:23:44.345 --> 00:23:46.659 a complete clinical response.  
NOTE Confidence: 0.704020315454546

00:23:46.660 --> 00:23:48.998 Again, this is an 11 patient study,  
NOTE Confidence: 0.704020315454546

00:23:49.000 --> 00:23:50.925 but I think there will be perhaps  
NOTE Confidence: 0.704020315454546

00:23:50.925 --> 00:23:52.920 more data looking at this patient  
NOTE Confidence: 0.704020315454546

00:23:52.920 --> 00:23:54.408 population from other investigators  
NOTE Confidence: 0.704020315454546

00:23:54.408 --> 00:23:56.548 and released from perhaps this team.  
NOTE Confidence: 0.704020315454546

00:23:56.550 --> 00:23:56.931 Well,  
NOTE Confidence: 0.704020315454546

00:23:56.931 --> 00:23:59.598 it may ultimately result in this becoming  
NOTE Confidence: 0.704020315454546

00:23:59.598 --> 00:24:01.249 practice changing in the future,  
NOTE Confidence: 0.704020315454546

00:24:01.250 --> 00:24:03.210 so I think stay tuned.  
NOTE Confidence: 0.704020315454546

00:24:03.210 --> 00:24:05.464 I this is not approved yet for  
NOTE Confidence: 0.704020315454546

00:24:05.464 --> 00:24:06.430 localized colorectal cancer.  
NOTE Confidence: 0.704020315454546

00:24:06.430 --> 00:24:08.164 These patients need to watch very  
NOTE Confidence: 0.704020315454546

00:24:08.164 --> 00:24:09.320 closely for progression because  
NOTE Confidence: 0.704020315454546

00:24:09.367 --> 00:24:10.389 they're chemoresistant.

NOTE Confidence: 0.704020315454546  
00:24:10.390 --> 00:24:12.518 I do think it will probably be  
NOTE Confidence: 0.704020315454546  
00:24:12.518 --> 00:24:14.210 incorporated into guidelines in the future.  
NOTE Confidence: 0.704020315454546  
00:24:14.210 --> 00:24:15.083 So in summary,  
NOTE Confidence: 0.704020315454546  
00:24:15.083 --> 00:24:16.829 total new agent therapy can be  
NOTE Confidence: 0.704020315454546  
00:24:16.829 --> 00:24:18.529 considered standard for most patients  
NOTE Confidence: 0.704020315454546  
00:24:18.530 --> 00:24:19.960 where systemic therapy is planned,  
NOTE Confidence: 0.704020315454546  
00:24:19.960 --> 00:24:21.556 which is most clinical teeth region  
NOTE Confidence: 0.704020315454546  
00:24:21.556 --> 00:24:23.389 1 disease in the United States?  
NOTE Confidence: 0.704020315454546  
00:24:23.390 --> 00:24:24.860 Both Foxrock Fox can be used  
NOTE Confidence: 0.704020315454546  
00:24:24.860 --> 00:24:26.329 for most patients and full Fox,  
NOTE Confidence: 0.704020315454546  
00:24:26.330 --> 00:24:27.562 full, fair and ox.  
NOTE Confidence: 0.704020315454546  
00:24:27.562 --> 00:24:28.486 For select patients,  
NOTE Confidence: 0.704020315454546  
00:24:28.490 --> 00:24:29.710 immune checkpoint inhibitors will  
NOTE Confidence: 0.704020315454546  
00:24:29.710 --> 00:24:31.540 become a treatment option for localized  
NOTE Confidence: 0.704020315454546  
00:24:31.582 --> 00:24:32.863 disease in the future but are not  
NOTE Confidence: 0.704020315454546

00:24:32.863 --> 00:24:34.340 yet in the treatment guidelines.

NOTE Confidence: 0.03717491

00:24:44.880 --> 00:24:50.000 Umm? I think if anyone has any

NOTE Confidence: 0.03717491

00:24:50.000 --> 00:24:54.150 questions we can take one question now.

NOTE Confidence: 0.03717491

00:24:54.150 --> 00:24:56.880 Although I am not entirely sure.

NOTE Confidence: 0.03717491

00:24:56.880 --> 00:25:01.184 Since I cannot see anybody but the panelists.

NOTE Confidence: 0.03717491

00:25:01.190 --> 00:25:02.835 Whether a question can get to me,

NOTE Confidence: 0.686984582

00:25:03.450 --> 00:25:05.100 I can't see anybody either.

NOTE Confidence: 0.58848537

00:25:14.910 --> 00:25:20.194 OK, on the chat, so certainly I'll answer

NOTE Confidence: 0.58848537

00:25:20.194 --> 00:25:21.888 this one question and then I'll I'll.

NOTE Confidence: 0.58848537

00:25:21.890 --> 00:25:22.940 I'll watch the chat a little

NOTE Confidence: 0.58848537

00:25:22.940 --> 00:25:23.640 bit closer after this.

NOTE Confidence: 0.58848537

00:25:23.640 --> 00:25:25.010 What is your current approach?

NOTE Confidence: 0.58848537

00:25:25.010 --> 00:25:27.884 My current approach is typically full

NOTE Confidence: 0.58848537

00:25:27.884 --> 00:25:31.380 fox for for four months cycles and

NOTE Confidence: 0.58848537

00:25:31.380 --> 00:25:33.360 long course radiotherapy for the most

NOTE Confidence: 0.58848537

00:25:33.360 --> 00:25:35.505 patients with John will talk about

NOTE Confidence: 0.58848537

00:25:35.505 --> 00:25:37.330 the radiation selection and planning,

NOTE Confidence: 0.58848537

00:25:37.330 --> 00:25:39.195 but usually starting with systemic

NOTE Confidence: 0.58848537

00:25:39.195 --> 00:25:40.687 therapy for logistical purposes.

NOTE Confidence: 0.58848537

00:25:40.690 --> 00:25:45.950 The fox, or for a cycles well Fox series,

NOTE Confidence: 0.58848537

00:25:45.950 --> 00:25:47.747 certainly unused in those select

NOTE Confidence: 0.58848537

00:25:47.747 --> 00:25:49.541 younger 5th patients where I think

NOTE Confidence: 0.58848537

00:25:49.541 --> 00:25:51.480 they have more aggressive disease,

NOTE Confidence: 0.58848537

00:25:51.480 --> 00:25:53.566 but that is not my normal practice.

NOTE Confidence: 0.844957160833333

00:25:54.730 --> 00:25:56.476 Right, I think our practice has

NOTE Confidence: 0.844957160833333

00:25:56.476 --> 00:25:58.200 been long course and you know,

NOTE Confidence: 0.844957160833333

00:25:58.200 --> 00:26:00.502 we'll talk about. I think Mike.

NOTE Confidence: 0.844957160833333

00:26:00.502 --> 00:26:02.826 You talked a lot about TNT will

NOTE Confidence: 0.844957160833333

00:26:02.826 --> 00:26:05.184 probably skip over my stellar trial and

NOTE Confidence: 0.844957160833333

00:26:05.184 --> 00:26:07.729 rapidough that I have in my slide set,

NOTE Confidence: 0.844957160833333

00:26:07.730 --> 00:26:09.170 so there were not redundant.

NOTE Confidence: 0.844957160833333

00:26:09.170 --> 00:26:10.520 Try to focus more on short  
NOTE Confidence: 0.844957160833333

00:26:10.520 --> 00:26:12.310 course versus long course.  
NOTE Confidence: 0.844957160833333

00:26:12.310 --> 00:26:14.170 We probably could incorporate short  
NOTE Confidence: 0.844957160833333

00:26:14.170 --> 00:26:16.030 course more into our practice,  
NOTE Confidence: 0.844957160833333

00:26:16.030 --> 00:26:17.110 but you know,  
NOTE Confidence: 0.844957160833333

00:26:17.110 --> 00:26:19.270 I think everyone's just more comfortable  
NOTE Confidence: 0.844957160833333

00:26:19.270 --> 00:26:21.670 with long course and the patients do well,  
NOTE Confidence: 0.844957160833333

00:26:21.670 --> 00:26:23.838 so I'm going to dig in a little  
NOTE Confidence: 0.844957160833333

00:26:23.838 --> 00:26:26.208 into the nitty gritty of radiation.  
NOTE Confidence: 0.844957160833333

00:26:26.210 --> 00:26:28.218 So you guys have a sense of what  
NOTE Confidence: 0.844957160833333

00:26:28.218 --> 00:26:30.220 we do for rectal cancer when  
NOTE Confidence: 0.844957160833333

00:26:30.220 --> 00:26:32.020 we live down in the basement,  
NOTE Confidence: 0.844957160833333

00:26:32.020 --> 00:26:33.679 so have a little bit of the  
NOTE Confidence: 0.844957160833333

00:26:33.679 --> 00:26:35.396 technique and then we'll talk about  
NOTE Confidence: 0.844957160833333

00:26:35.396 --> 00:26:36.976 short course versus long course.  
NOTE Confidence: 0.844957160833333

00:26:36.980 --> 00:26:38.196 I'll touch on TNT,

NOTE Confidence: 0.844957160833333  
00:26:38.196 --> 00:26:40.461 but I'm going to breeze over that  
NOTE Confidence: 0.844957160833333  
00:26:40.461 --> 00:26:42.336 fast because Doctor Shakini covered  
NOTE Confidence: 0.844957160833333  
00:26:42.336 --> 00:26:45.116 it quite well and then we'll leave  
NOTE Confidence: 0.844957160833333  
00:26:45.116 --> 00:26:47.136 watchful waiting to Doctor Reddy.  
NOTE Confidence: 0.844957160833333  
00:26:47.140 --> 00:26:48.580 So Kim, Johann, I treat you.  
NOTE Confidence: 0.844957160833333  
00:26:48.580 --> 00:26:50.412 I cancers here in New Haven and I  
NOTE Confidence: 0.844957160833333  
00:26:50.412 --> 00:26:52.401 think one of the things we need to  
NOTE Confidence: 0.844957160833333  
00:26:52.401 --> 00:26:54.058 emphasize is that the treatment of  
NOTE Confidence: 0.844957160833333  
00:26:54.058 --> 00:26:56.214 rectal cancer is a team based approach.  
NOTE Confidence: 0.844957160833333  
00:26:56.220 --> 00:26:58.089 So I'm lucky to work with these  
NOTE Confidence: 0.844957160833333  
00:26:58.089 --> 00:27:00.078 folks and a handful of others,  
NOTE Confidence: 0.844957160833333  
00:27:00.080 --> 00:27:02.131 and we really need to work together  
NOTE Confidence: 0.844957160833333  
00:27:02.131 --> 00:27:04.206 to get these patients treated and  
NOTE Confidence: 0.844957160833333  
00:27:04.206 --> 00:27:06.474 it's a collaborative approach and I  
NOTE Confidence: 0.844957160833333  
00:27:06.474 --> 00:27:08.750 think that's important to recognize.  
NOTE Confidence: 0.844957160833333

00:27:08.750 --> 00:27:10.130 So with that I'll get started.  
NOTE Confidence: 0.844957160833333

00:27:10.130 --> 00:27:13.190 So plan for today is I was going to  
NOTE Confidence: 0.844957160833333

00:27:13.190 --> 00:27:15.510 talk about what is the benefit of  
NOTE Confidence: 0.844957160833333

00:27:15.510 --> 00:27:16.970 radiation therapy for rectal cancer?  
NOTE Confidence: 0.844957160833333

00:27:16.970 --> 00:27:19.070 So local control benefit prior to  
NOTE Confidence: 0.844957160833333

00:27:19.070 --> 00:27:20.880 surgery that's quick doctor Chikani  
NOTE Confidence: 0.844957160833333

00:27:20.880 --> 00:27:22.950 already touched on the sour trial.  
NOTE Confidence: 0.844957160833333

00:27:22.950 --> 00:27:24.454 We'll talk about different  
NOTE Confidence: 0.844957160833333

00:27:24.454 --> 00:27:25.206 radiation techniques,  
NOTE Confidence: 0.844957160833333

00:27:25.210 --> 00:27:26.484 so when you see in my note,  
NOTE Confidence: 0.844957160833333

00:27:26.490 --> 00:27:29.010 should we do 3D conformal should be the IRT.  
NOTE Confidence: 0.844957160833333

00:27:29.010 --> 00:27:31.162 What does SBRT so that everyone has a  
NOTE Confidence: 0.844957160833333

00:27:31.162 --> 00:27:33.613 sense of what those techniques are and  
NOTE Confidence: 0.844957160833333

00:27:33.613 --> 00:27:36.110 how they're helpful for different scenarios?  
NOTE Confidence: 0.844957160833333

00:27:36.110 --> 00:27:38.728 Then I'll touch on the standard long.  
NOTE Confidence: 0.844957160833333

00:27:38.730 --> 00:27:39.640 Of course,

NOTE Confidence: 0.844957160833333  
00:27:39.640 --> 00:27:41.460 chemoradiation versus short course  
NOTE Confidence: 0.844957160833333  
00:27:41.460 --> 00:27:44.604 radiation and then do a quick review of  
NOTE Confidence: 0.844957160833333  
00:27:44.604 --> 00:27:47.510 TNT because I think we we got a great  
NOTE Confidence: 0.844957160833333  
00:27:47.510 --> 00:27:49.760 review of that from Doctor Dakini,  
NOTE Confidence: 0.844957160833333  
00:27:49.760 --> 00:27:50.980 so I'm just showing some  
NOTE Confidence: 0.844957160833333  
00:27:50.980 --> 00:27:51.956 rectal plans down here.  
NOTE Confidence: 0.844957160833333  
00:27:51.960 --> 00:27:54.407 This is a 3D conformal plan and  
NOTE Confidence: 0.844957160833333  
00:27:54.407 --> 00:27:56.303 the one to the right is a IRT  
NOTE Confidence: 0.844957160833333  
00:27:56.303 --> 00:27:58.416 plan and we'll talk about the  
NOTE Confidence: 0.844957160833333  
00:27:58.416 --> 00:28:00.226 benefits of those two approaches.  
NOTE Confidence: 0.872966478125  
00:28:02.400 --> 00:28:05.829 OK, so why do we use preop chemo radiation  
NOTE Confidence: 0.872966478125  
00:28:05.829 --> 00:28:09.315 prior to surgery for rectal cancer patients?  
NOTE Confidence: 0.872966478125  
00:28:09.320 --> 00:28:11.497 Michael talked about this already a bit,  
NOTE Confidence: 0.872966478125  
00:28:11.500 --> 00:28:12.940 but the benefit is local control.  
NOTE Confidence: 0.872966478125  
00:28:12.940 --> 00:28:15.838 We don't see the overall survival benefit,  
NOTE Confidence: 0.872966478125

00:28:15.840 --> 00:28:17.840 so this is the classic  
NOTE Confidence: 0.872966478125

00:28:17.840 --> 00:28:19.440 German rectal trial rate,  
NOTE Confidence: 0.872966478125

00:28:19.440 --> 00:28:22.328 which I think we all know about that  
NOTE Confidence: 0.872966478125

00:28:22.328 --> 00:28:25.153 compares pre-op versus post-op radiation in  
NOTE Confidence: 0.872966478125

00:28:25.153 --> 00:28:28.195 patients with locally advanced rectal cancer.  
NOTE Confidence: 0.872966478125

00:28:28.200 --> 00:28:31.208 And what we see is that patients who  
NOTE Confidence: 0.872966478125

00:28:31.208 --> 00:28:33.911 have locally advanced disease so T3T4  
NOTE Confidence: 0.872966478125

00:28:33.911 --> 00:28:36.788 or node positive, who had preop radiation.  
NOTE Confidence: 0.872966478125

00:28:36.790 --> 00:28:38.396 And this is long course with  
NOTE Confidence: 0.872966478125

00:28:38.396 --> 00:28:39.420 concurrent 5 of you.  
NOTE Confidence: 0.872966478125

00:28:39.420 --> 00:28:41.598 Now we more commonly used alotta  
NOTE Confidence: 0.872966478125

00:28:41.598 --> 00:28:43.820 compared to post op radiation.  
NOTE Confidence: 0.872966478125

00:28:43.820 --> 00:28:45.415 The local control was improved  
NOTE Confidence: 0.872966478125

00:28:45.415 --> 00:28:47.010 in the pre OP setting.  
NOTE Confidence: 0.872966478125

00:28:47.010 --> 00:28:49.103 And really it's you know if you  
NOTE Confidence: 0.872966478125

00:28:49.103 --> 00:28:50.996 contour these cases is that I can

NOTE Confidence: 0.872966478125

00:28:50.996 --> 00:28:52.753 see the tumor in the preop setting

NOTE Confidence: 0.872966478125

00:28:52.753 --> 00:28:54.762 in the post op setting I'm merging

NOTE Confidence: 0.872966478125

00:28:54.762 --> 00:28:56.966 in the pre OP imaging and kind of

NOTE Confidence: 0.872966478125

00:28:56.966 --> 00:28:58.690 treating where the tumor used to be.

NOTE Confidence: 0.872966478125

00:28:58.690 --> 00:29:00.888 So I think that helps people understand

NOTE Confidence: 0.872966478125

00:29:00.888 --> 00:29:02.643 why the local control benefit

NOTE Confidence: 0.872966478125

00:29:02.643 --> 00:29:04.905 really exists in the preop setting.

NOTE Confidence: 0.872966478125

00:29:04.910 --> 00:29:06.884 The other benefit of preop radiation is

NOTE Confidence: 0.872966478125

00:29:06.884 --> 00:29:09.238 for those patients with distal tumors, right?

NOTE Confidence: 0.872966478125

00:29:09.238 --> 00:29:14.120 We see an increased improvement in.

NOTE Confidence: 0.872966478125

00:29:14.120 --> 00:29:17.816 Sphincter sparing surgeries or lack of need.

NOTE Confidence: 0.872966478125

00:29:17.820 --> 00:29:20.524 Sorry my leg is going off for an

NOTE Confidence: 0.872966478125

00:29:20.524 --> 00:29:23.360 APR and permanent colostomy so you

NOTE Confidence: 0.872966478125

00:29:23.360 --> 00:29:24.770 know there are some patients where

NOTE Confidence: 0.872966478125

00:29:24.770 --> 00:29:26.456 the tumor is so distal and involving

NOTE Confidence: 0.872966478125

00:29:26.456 --> 00:29:28.155 this finger that we know that it's  
NOTE Confidence: 0.872966478125

00:29:28.155 --> 00:29:29.340 not going to benefit them.  
NOTE Confidence: 0.872966478125

00:29:29.340 --> 00:29:30.117 But you know,  
NOTE Confidence: 0.872966478125

00:29:30.117 --> 00:29:31.930 for patients who kind of have that  
NOTE Confidence: 0.872966478125

00:29:31.991 --> 00:29:33.993 distal tumor where they're on the brink  
NOTE Confidence: 0.872966478125

00:29:33.993 --> 00:29:35.940 of needing an APR versus and LAR,  
NOTE Confidence: 0.872966478125

00:29:35.940 --> 00:29:38.369 I think that that is another benefit  
NOTE Confidence: 0.872966478125

00:29:38.369 --> 00:29:40.100 of pre OP therapy.  
NOTE Confidence: 0.872966478125

00:29:40.100 --> 00:29:43.058 Toxicities are less in the Preop  
NOTE Confidence: 0.872966478125

00:29:43.058 --> 00:29:44.537 sitting as well.  
NOTE Confidence: 0.872966478125

00:29:44.540 --> 00:29:45.668 And but though,  
NOTE Confidence: 0.872966478125

00:29:45.668 --> 00:29:46.796 as I mentioned,  
NOTE Confidence: 0.872966478125

00:29:46.800 --> 00:29:49.930 no difference in overall survival.  
NOTE Confidence: 0.872966478125

00:29:49.930 --> 00:29:52.294 So that's that's why we employ  
NOTE Confidence: 0.872966478125

00:29:52.294 --> 00:29:53.870 radiation prior to surgery.  
NOTE Confidence: 0.872966478125

00:29:53.870 --> 00:29:55.278 So now I'm going to dig into a

NOTE Confidence: 0.872966478125

00:29:55.278 --> 00:29:56.370 little bit of nitty gritty,

NOTE Confidence: 0.872966478125

00:29:56.370 --> 00:29:58.410 dorky radiation therapy techniques.

NOTE Confidence: 0.872966478125

00:29:58.410 --> 00:30:02.529 But I think it hopefully is of interest.

NOTE Confidence: 0.872966478125

00:30:02.530 --> 00:30:03.026 So what?

NOTE Confidence: 0.872966478125

00:30:03.026 --> 00:30:04.266 What are these different things

NOTE Confidence: 0.872966478125

00:30:04.266 --> 00:30:05.310 that we're talking about,

NOTE Confidence: 0.872966478125

00:30:05.310 --> 00:30:07.470 and what are the techniques and what are

NOTE Confidence: 0.872966478125

00:30:07.470 --> 00:30:09.466 the benefits of using one versus another

NOTE Confidence: 0.872966478125

00:30:09.466 --> 00:30:12.006 right in the setting of rectal cancer?

NOTE Confidence: 0.872966478125

00:30:12.010 --> 00:30:13.894 So how we shape our radiation

NOTE Confidence: 0.872966478125

00:30:13.894 --> 00:30:16.128 fields are with what we call

NOTE Confidence: 0.872966478125

00:30:16.128 --> 00:30:17.487 these multileaf collimators,

NOTE Confidence: 0.872966478125

00:30:17.490 --> 00:30:19.929 so these are.

NOTE Confidence: 0.872966478125

00:30:19.930 --> 00:30:23.440 Tungsten leaves that are two millimeters

NOTE Confidence: 0.872966478125

00:30:23.440 --> 00:30:25.880 or less and they move in and out of the

NOTE Confidence: 0.872966478125

00:30:25.947 --> 00:30:28.577 beam so we can use them to shape the beam.

NOTE Confidence: 0.872966478125

00:30:28.580 --> 00:30:31.004 But we also can use them to modulate

NOTE Confidence: 0.872966478125

00:30:31.004 --> 00:30:32.579 the intensity of of the beam.

NOTE Confidence: 0.872966478125

00:30:32.580 --> 00:30:34.668 So if you turn the beat Mom and they

NOTE Confidence: 0.872966478125

00:30:34.668 --> 00:30:36.611 come in and out during treatment

NOTE Confidence: 0.872966478125

00:30:36.611 --> 00:30:38.256 right then at different times,

NOTE Confidence: 0.872966478125

00:30:38.260 --> 00:30:40.940 each portion of the tumor target can be

NOTE Confidence: 0.872966478125

00:30:40.940 --> 00:30:43.018 getting different intensity of radiation,

NOTE Confidence: 0.872966478125

00:30:43.020 --> 00:30:44.904 which allows us to conform the

NOTE Confidence: 0.872966478125

00:30:44.904 --> 00:30:46.763 radiation dose to our tumor target

NOTE Confidence: 0.872966478125

00:30:46.763 --> 00:30:48.660 and the goal here is dose of

NOTE Confidence: 0.872966478125

00:30:48.660 --> 00:30:50.627 the tumor reduced side effects.

NOTE Confidence: 0.872966478125

00:30:50.630 --> 00:30:52.910 So when we're talking about 3D

NOTE Confidence: 0.872966478125

00:30:52.910 --> 00:30:54.786 conformal radiation, this is basically,

NOTE Confidence: 0.872966478125

00:30:54.786 --> 00:30:55.530 you know,

NOTE Confidence: 0.872966478125

00:30:55.530 --> 00:30:57.850 in the old days we would use an X ray

NOTE Confidence: 0.822109623333333  
00:30:57.919 --> 00:31:00.367 and use Bony anatomy to set our fields.  
NOTE Confidence: 0.822109623333333  
00:31:00.370 --> 00:31:02.470 3D conformal radiation just means  
NOTE Confidence: 0.822109623333333  
00:31:02.470 --> 00:31:05.252 that we're using a CAT scan and  
NOTE Confidence: 0.822109623333333  
00:31:05.252 --> 00:31:07.652 I sit for a couple of hours and  
NOTE Confidence: 0.822109623333333  
00:31:07.731 --> 00:31:10.056 contour my targets and contour.  
NOTE Confidence: 0.822109623333333  
00:31:10.060 --> 00:31:11.830 The normal tissues around those  
NOTE Confidence: 0.822109623333333  
00:31:11.830 --> 00:31:13.600 tumor targets every 2 millimeters  
NOTE Confidence: 0.822109623333333  
00:31:13.662 --> 00:31:15.300 through the slice of the skin,  
NOTE Confidence: 0.822109623333333  
00:31:15.300 --> 00:31:17.925 so that we can use those contours  
NOTE Confidence: 0.822109623333333  
00:31:17.925 --> 00:31:20.720 to shape the beams to fit the  
NOTE Confidence: 0.822109623333333  
00:31:20.720 --> 00:31:22.818 tumor target and avoid the normal  
NOTE Confidence: 0.822109623333333  
00:31:22.818 --> 00:31:24.453 structures as much as possible.  
NOTE Confidence: 0.822109623333333  
00:31:24.460 --> 00:31:25.884 But you can see that when we do  
NOTE Confidence: 0.822109623333333  
00:31:25.884 --> 00:31:27.300 that for a rectal plan, right,  
NOTE Confidence: 0.822109623333333  
00:31:27.300 --> 00:31:29.580 we're shaped around the muzzle \*\*\*\*\*  
NOTE Confidence: 0.822109623333333

00:31:29.580 --> 00:31:32.172 but we're still treating quite a bit of  
NOTE Confidence: 0.8221096233333333

00:31:32.172 --> 00:31:34.357 normal tissue around the rectal tumor,  
NOTE Confidence: 0.8221096233333333

00:31:34.360 --> 00:31:37.156 so that would be the downside  
NOTE Confidence: 0.8221096233333333

00:31:37.160 --> 00:31:40.570 of a 3D conformal plan.  
NOTE Confidence: 0.8221096233333333

00:31:40.570 --> 00:31:43.276 Intensity modulated radiation or IRT that  
NOTE Confidence: 0.8221096233333333

00:31:43.276 --> 00:31:46.608 you'll hear us throwing around in the charts?  
NOTE Confidence: 0.8221096233333333

00:31:46.610 --> 00:31:48.044 It's something that's a little harder  
NOTE Confidence: 0.8221096233333333

00:31:48.044 --> 00:31:49.649 to get approved by the insurance  
NOTE Confidence: 0.8221096233333333

00:31:49.649 --> 00:31:50.845 companies for rectal cancer,  
NOTE Confidence: 0.8221096233333333

00:31:50.850 --> 00:31:53.040 but I'm seeing it approved more  
NOTE Confidence: 0.8221096233333333

00:31:53.040 --> 00:31:53.770 commonly nowadays.  
NOTE Confidence: 0.8221096233333333

00:31:53.770 --> 00:31:56.066 So this I would think about as  
NOTE Confidence: 0.8221096233333333

00:31:56.066 --> 00:31:58.279 your radiation beam is divided into  
NOTE Confidence: 0.8221096233333333

00:31:58.279 --> 00:32:00.209 like these tiny little beamlet.  
NOTE Confidence: 0.8221096233333333

00:32:00.210 --> 00:32:02.030 So if you're thinking about a flashlight,  
NOTE Confidence: 0.8221096233333333

00:32:02.030 --> 00:32:04.125 each portion of the flashlight

NOTE Confidence: 0.822109623333333  
00:32:04.125 --> 00:32:06.220 has different intensity and then  
NOTE Confidence: 0.822109623333333  
00:32:06.288 --> 00:32:08.613 basically we're using a computer  
NOTE Confidence: 0.822109623333333  
00:32:08.613 --> 00:32:10.473 to optimize these intensities.  
NOTE Confidence: 0.822109623333333  
00:32:10.480 --> 00:32:12.300 And the shape of the beam so  
NOTE Confidence: 0.822109623333333  
00:32:12.300 --> 00:32:14.444 that we can create concave dose  
NOTE Confidence: 0.822109623333333  
00:32:14.444 --> 00:32:16.164 distributions that really conform  
NOTE Confidence: 0.822109623333333  
00:32:16.164 --> 00:32:18.944 to the shape of our tumor target  
NOTE Confidence: 0.822109623333333  
00:32:18.944 --> 00:32:20.719 and try to decrease toxicity.  
NOTE Confidence: 0.822109623333333  
00:32:20.720 --> 00:32:23.436 I have more luck getting this approved  
NOTE Confidence: 0.822109623333333  
00:32:23.436 --> 00:32:25.031 for postoperative cases because  
NOTE Confidence: 0.822109623333333  
00:32:25.031 --> 00:32:27.245 there's more normal bowel that falls  
NOTE Confidence: 0.822109623333333  
00:32:27.245 --> 00:32:29.862 into the field after surgery and I  
NOTE Confidence: 0.822109623333333  
00:32:29.862 --> 00:32:32.074 think it is more helpful for patients  
NOTE Confidence: 0.822109623333333  
00:32:32.074 --> 00:32:34.564 with T4 disease where we're treating  
NOTE Confidence: 0.822109623333333  
00:32:34.564 --> 00:32:36.669 external iliac nodes because the  
NOTE Confidence: 0.822109623333333

00:32:36.742 --> 00:32:39.070 volume comes more anterior and there's  
NOTE Confidence: 0.822109623333333

00:32:39.070 --> 00:32:41.550 more bowel that's in your field.  
NOTE Confidence: 0.822109623333333

00:32:41.550 --> 00:32:43.390 But for T3 case,  
NOTE Confidence: 0.822109623333333

00:32:43.390 --> 00:32:45.700 probably a 3D conformal plan is adequate.  
NOTE Confidence: 0.868231560588235

00:32:48.050 --> 00:32:49.802 So I think this is just a good  
NOTE Confidence: 0.868231560588235

00:32:49.802 --> 00:32:51.255 pictorial of what an intensity  
NOTE Confidence: 0.868231560588235

00:32:51.255 --> 00:32:52.535 modulated plan looks like.  
NOTE Confidence: 0.868231560588235

00:32:52.540 --> 00:32:53.608 This is a head neck case,  
NOTE Confidence: 0.868231560588235

00:32:53.610 --> 00:32:55.762 but it can give you the sense that  
NOTE Confidence: 0.868231560588235

00:32:55.762 --> 00:32:57.914 you have multiple beams targeted at  
NOTE Confidence: 0.868231560588235

00:32:57.914 --> 00:33:01.030 your tumor with intensity of the beam.  
NOTE Confidence: 0.868231560588235

00:33:01.030 --> 00:33:05.950 You know different across the entire area.  
NOTE Confidence: 0.845937430526316

00:33:08.000 --> 00:33:10.499 And the other thing that IRT allows  
NOTE Confidence: 0.845937430526316

00:33:10.499 --> 00:33:13.252 us to do is differentially dose  
NOTE Confidence: 0.845937430526316

00:33:13.252 --> 00:33:16.444 different areas of the tumor target.  
NOTE Confidence: 0.845937430526316

00:33:16.450 --> 00:33:20.350 So, for example, you can give.

NOTE Confidence: 0.845937430526316  
00:33:20.350 --> 00:33:23.195 Gross disease, a high dose  
NOTE Confidence: 0.845937430526316  
00:33:23.195 --> 00:33:24.902 and simultaneously elective  
NOTE Confidence: 0.845937430526316  
00:33:24.902 --> 00:33:27.637 nodes can get a lower dose.  
NOTE Confidence: 0.845937430526316  
00:33:27.640 --> 00:33:29.472 You know which is.  
NOTE Confidence: 0.845937430526316  
00:33:29.472 --> 00:33:32.220 It's a convenient way to plan.  
NOTE Confidence: 0.845937430526316  
00:33:32.220 --> 00:33:34.052 So this is an example of an IRT  
NOTE Confidence: 0.845937430526316  
00:33:34.052 --> 00:33:35.768 plan for a postop rectal case,  
NOTE Confidence: 0.845937430526316  
00:33:35.770 --> 00:33:37.751 and you can see right compared to  
NOTE Confidence: 0.845937430526316  
00:33:37.751 --> 00:33:39.564 that 3D conformal plan that I showed  
NOTE Confidence: 0.845937430526316  
00:33:39.564 --> 00:33:41.431 you that was like a box coming  
NOTE Confidence: 0.845937430526316  
00:33:41.431 --> 00:33:42.795 across this whole area, right?  
NOTE Confidence: 0.845937430526316  
00:33:42.795 --> 00:33:44.565 We're really able to carve the  
NOTE Confidence: 0.845937430526316  
00:33:44.565 --> 00:33:46.546 dose out of this anterior small  
NOTE Confidence: 0.845937430526316  
00:33:46.546 --> 00:33:48.598 bell and try to spare toxicity,  
NOTE Confidence: 0.845937430526316  
00:33:48.600 --> 00:33:50.616 so I think this is where we're moving.  
NOTE Confidence: 0.845937430526316

00:33:50.620 --> 00:33:53.226 If we can get insurance to  
NOTE Confidence: 0.845937430526316

00:33:53.226 --> 00:33:54.370 play along with us.  
NOTE Confidence: 0.765508517692308

00:33:56.760 --> 00:33:59.442 So then last as radiation technique  
NOTE Confidence: 0.765508517692308

00:33:59.442 --> 00:34:02.779 that I wanted to mention was SBRT.  
NOTE Confidence: 0.765508517692308

00:34:02.780 --> 00:34:05.558 So this is stereotactic radiation therapy  
NOTE Confidence: 0.765508517692308

00:34:05.558 --> 00:34:08.996 which is really delivery of a blade of doses  
NOTE Confidence: 0.765508517692308

00:34:08.996 --> 00:34:11.700 of radiation in five or fewer fractions.  
NOTE Confidence: 0.765508517692308

00:34:11.700 --> 00:34:13.665 So we use this in the brain or  
NOTE Confidence: 0.765508517692308

00:34:13.665 --> 00:34:15.520 outside of the brain in the body.  
NOTE Confidence: 0.765508517692308

00:34:15.520 --> 00:34:17.576 And where are we using this in the  
NOTE Confidence: 0.765508517692308

00:34:17.576 --> 00:34:19.293 context of rectal cancer, right?  
NOTE Confidence: 0.765508517692308

00:34:19.293 --> 00:34:20.665 Because that's what we're  
NOTE Confidence: 0.765508517692308

00:34:20.665 --> 00:34:21.694 talking about tonight.  
NOTE Confidence: 0.765508517692308

00:34:21.700 --> 00:34:23.972 So as I said, multiple conformal beams are  
NOTE Confidence: 0.765508517692308

00:34:23.972 --> 00:34:26.426 arcs to deliver high doses of radiation.  
NOTE Confidence: 0.765508517692308

00:34:26.430 --> 00:34:28.789 With rapid falloff beyond the target volume.

NOTE Confidence: 0.765508517692308  
00:34:28.790 --> 00:34:31.607 So if we use technology to be very tight  
NOTE Confidence: 0.765508517692308  
00:34:31.607 --> 00:34:34.255 with our dose distribution then we can  
NOTE Confidence: 0.765508517692308  
00:34:34.255 --> 00:34:37.508 get away with giving high doses of radiation.  
NOTE Confidence: 0.765508517692308  
00:34:37.510 --> 00:34:40.752 And protect the normal tissues so you  
NOTE Confidence: 0.765508517692308  
00:34:40.752 --> 00:34:42.708 know the technology outside of the  
NOTE Confidence: 0.765508517692308  
00:34:42.708 --> 00:34:44.820 brain really started in early stage.  
NOTE Confidence: 0.765508517692308  
00:34:44.820 --> 00:34:46.876 Lung cancers were using it in liver cancers,  
NOTE Confidence: 0.765508517692308  
00:34:46.880 --> 00:34:47.572 pancreas cancers,  
NOTE Confidence: 0.765508517692308  
00:34:47.572 --> 00:34:48.264 prostate cancers,  
NOTE Confidence: 0.765508517692308  
00:34:48.264 --> 00:34:50.744 but where we use it for rectal  
NOTE Confidence: 0.765508517692308  
00:34:50.744 --> 00:34:52.784 cancer is really in the setting  
NOTE Confidence: 0.765508517692308  
00:34:52.784 --> 00:34:54.340 of oligo metastatic disease,  
NOTE Confidence: 0.765508517692308  
00:34:54.340 --> 00:34:56.156 so I wanted to touch on that briefly.  
NOTE Confidence: 0.765508517692308  
00:34:56.160 --> 00:34:59.790 So in order to deliver these high  
NOTE Confidence: 0.765508517692308  
00:34:59.790 --> 00:35:01.473 doses of radiation where quite  
NOTE Confidence: 0.765508517692308

00:35:01.473 --> 00:35:03.399 precise with our patient set up.

NOTE Confidence: 0.765508517692308

00:35:03.400 --> 00:35:04.570 So this is what your patient

NOTE Confidence: 0.765508517692308

00:35:04.570 --> 00:35:05.620 is going to look like,

NOTE Confidence: 0.765508517692308

00:35:05.620 --> 00:35:07.685 if you send them to me for.

NOTE Confidence: 0.765508517692308

00:35:07.690 --> 00:35:11.858 SBRT, so we build something called VAC Lock,

NOTE Confidence: 0.765508517692308

00:35:11.860 --> 00:35:13.474 which is a mold underneath them

NOTE Confidence: 0.765508517692308

00:35:13.474 --> 00:35:15.090 that holds them in position.

NOTE Confidence: 0.765508517692308

00:35:15.090 --> 00:35:17.930 I often put abdominal compression

NOTE Confidence: 0.765508517692308

00:35:17.930 --> 00:35:19.955 so that they're breathing more

NOTE Confidence: 0.765508517692308

00:35:19.955 --> 00:35:21.430 shallow so we're really looks

NOTE Confidence: 0.765508517692308

00:35:21.430 --> 00:35:23.069 like a blood pressure cuff,

NOTE Confidence: 0.765508517692308

00:35:23.070 --> 00:35:23.550 shown here,

NOTE Confidence: 0.765508517692308

00:35:23.550 --> 00:35:25.230 but it's placed over their belly and

NOTE Confidence: 0.765508517692308

00:35:25.230 --> 00:35:26.844 if they're breathing more shallow

NOTE Confidence: 0.765508517692308

00:35:26.844 --> 00:35:28.164 then there's less respiratory

NOTE Confidence: 0.765508517692308

00:35:28.164 --> 00:35:29.628 motion of my tumor target.

NOTE Confidence: 0.765508517692308

00:35:29.630 --> 00:35:31.886 So my tumor volume is smaller.

NOTE Confidence: 0.765508517692308

00:35:31.890 --> 00:35:34.466 We then obtain usually an Ivy contrast

NOTE Confidence: 0.765508517692308

00:35:34.466 --> 00:35:37.235 CT scan from planning and then what

NOTE Confidence: 0.765508517692308

00:35:37.235 --> 00:35:39.617 we call a four dimensional scan.

NOTE Confidence: 0.765508517692308

00:35:39.620 --> 00:35:41.700 Which is really a video and it shows

NOTE Confidence: 0.765508517692308

00:35:41.700 --> 00:35:44.168 me how the tumor moves right if we

NOTE Confidence: 0.765508517692308

00:35:44.168 --> 00:35:46.279 have an oligo metastasis in the liver,

NOTE Confidence: 0.765508517692308

00:35:46.280 --> 00:35:48.704 it would show me how that moves as

NOTE Confidence: 0.765508517692308

00:35:48.704 --> 00:35:50.996 the patient breathes so that I can

NOTE Confidence: 0.765508517692308

00:35:50.996 --> 00:35:53.469 focus my radiation on that path and

NOTE Confidence: 0.765508517692308

00:35:53.469 --> 00:35:55.444 tighten up the dose distribution.

NOTE Confidence: 0.765508517692308

00:35:55.450 --> 00:35:57.016 We always use image guidance and

NOTE Confidence: 0.765508517692308

00:35:57.016 --> 00:35:59.254 I have a slide on that in I think

NOTE Confidence: 0.765508517692308

00:35:59.254 --> 00:36:01.232 the next slide to help us align

NOTE Confidence: 0.765508517692308

00:36:01.232 --> 00:36:02.399 the patient appropriately.

NOTE Confidence: 0.765508517692308

00:36:02.400 --> 00:36:04.626 For treatment we often put markers in  
NOTE Confidence: 0.765508517692308

00:36:04.626 --> 00:36:07.169 the tumor so that we can use those  
NOTE Confidence: 0.765508517692308

00:36:07.169 --> 00:36:09.270 as surrogates to align the patient.  
NOTE Confidence: 0.765508517692308

00:36:09.270 --> 00:36:10.272 To be precise,  
NOTE Confidence: 0.765508517692308

00:36:10.272 --> 00:36:12.610 with treatment and some places are used  
NOTE Confidence: 0.765508517692308

00:36:12.680 --> 00:36:14.846 in what we call respiratory gating,  
NOTE Confidence: 0.765508517692308

00:36:14.850 --> 00:36:17.570 where you can treat the patient only in  
NOTE Confidence: 0.765508517692308

00:36:17.570 --> 00:36:19.887 certain phases of the respiratory cycle.  
NOTE Confidence: 0.765508517692308

00:36:19.890 --> 00:36:22.416 So only in deep inspiration or  
NOTE Confidence: 0.765508517692308

00:36:22.416 --> 00:36:25.139 exhalation in order to also reduce.  
NOTE Confidence: 0.828787364827586

00:36:27.710 --> 00:36:28.454 Treatment volume.  
NOTE Confidence: 0.828787364827586

00:36:28.454 --> 00:36:30.686 So basically the shape of the  
NOTE Confidence: 0.828787364827586

00:36:30.686 --> 00:36:32.486 beam changes and the intensity  
NOTE Confidence: 0.828787364827586

00:36:32.486 --> 00:36:34.460 across the beam changes as the  
NOTE Confidence: 0.828787364827586

00:36:34.460 --> 00:36:36.438 beam arcs around the patient and  
NOTE Confidence: 0.828787364827586

00:36:36.438 --> 00:36:38.444 that allows us to, you know,

NOTE Confidence: 0.828787364827586  
00:36:38.444 --> 00:36:40.279 deliver this tight dose distribution.  
NOTE Confidence: 0.918599632  
00:36:43.940 --> 00:36:46.028 So this is just an example  
NOTE Confidence: 0.918599632  
00:36:46.028 --> 00:36:47.420 of our image guidance,  
NOTE Confidence: 0.918599632  
00:36:47.420 --> 00:36:50.297 so we usually obtain what we call  
NOTE Confidence: 0.918599632  
00:36:50.297 --> 00:36:53.240 it cone beam CT on the machine,  
NOTE Confidence: 0.918599632  
00:36:53.240 --> 00:36:55.046 and that is something that we fuse  
NOTE Confidence: 0.918599632  
00:36:55.046 --> 00:36:57.020 in with the planning CT so that  
NOTE Confidence: 0.918599632  
00:36:57.020 --> 00:36:59.066 we can scoot the patient around on  
NOTE Confidence: 0.918599632  
00:36:59.066 --> 00:37:00.710 the machine and make sure they're  
NOTE Confidence: 0.918599632  
00:37:00.710 --> 00:37:03.972 in the exact same position as they  
NOTE Confidence: 0.918599632  
00:37:03.972 --> 00:37:06.360 were for planning to be precise.  
NOTE Confidence: 0.918599632  
00:37:06.360 --> 00:37:07.257 So the purple,  
NOTE Confidence: 0.918599632  
00:37:07.257 --> 00:37:09.051 for example is planning CT and  
NOTE Confidence: 0.918599632  
00:37:09.051 --> 00:37:10.693 the green is what they look  
NOTE Confidence: 0.918599632  
00:37:10.693 --> 00:37:12.650 like on the day of treatment.  
NOTE Confidence: 0.918599632

00:37:12.650 --> 00:37:14.474 And with that fusion we get  
NOTE Confidence: 0.918599632

00:37:14.474 --> 00:37:16.310 them into the perfect position.  
NOTE Confidence: 0.918599632

00:37:16.310 --> 00:37:18.690 So how do we use stereotactic radiation  
NOTE Confidence: 0.918599632

00:37:18.690 --> 00:37:20.849 in the context of rectal cancer?  
NOTE Confidence: 0.918599632

00:37:20.850 --> 00:37:22.605 So I wanted to bring up the Saber comment,  
NOTE Confidence: 0.918599632

00:37:22.610 --> 00:37:23.870 trial touch on it briefly,  
NOTE Confidence: 0.918599632

00:37:23.870 --> 00:37:25.712 because I think we're focusing more  
NOTE Confidence: 0.918599632

00:37:25.712 --> 00:37:27.340 on locally advanced rectal cancer.  
NOTE Confidence: 0.918599632

00:37:27.340 --> 00:37:28.950 But since I mentioned Asperity,  
NOTE Confidence: 0.918599632

00:37:28.950 --> 00:37:31.470 I thought this was important to talk about.  
NOTE Confidence: 0.918599632

00:37:31.470 --> 00:37:35.340 So the question is here in patients who  
NOTE Confidence: 0.918599632

00:37:35.340 --> 00:37:37.720 have a controlled primary and only one  
NOTE Confidence: 0.918599632

00:37:37.788 --> 00:37:40.210 to five sites of metastatic disease is  
NOTE Confidence: 0.918599632

00:37:40.210 --> 00:37:42.768 what they looked at with all metastases.  
NOTE Confidence: 0.918599632

00:37:42.770 --> 00:37:45.098 Amenable to stereotactic radiation,  
NOTE Confidence: 0.918599632

00:37:45.098 --> 00:37:48.008 patients were randomized to just

NOTE Confidence: 0.918599632

00:37:48.008 --> 00:37:50.138 continuing on standard of care.

NOTE Confidence: 0.918599632

00:37:50.140 --> 00:37:52.153 Palliative chemotherapy versus

NOTE Confidence: 0.918599632

00:37:52.153 --> 00:37:55.508 that followed by ablating all

NOTE Confidence: 0.918599632

00:37:55.508 --> 00:37:58.998 sites of metastases with SBRT.

NOTE Confidence: 0.918599632

00:37:59.000 --> 00:38:01.096 Most patients had breast,

NOTE Confidence: 0.918599632

00:38:01.096 --> 00:38:01.620 lung,

NOTE Confidence: 0.918599632

00:38:01.620 --> 00:38:03.600 colorectal or prostate cancer so

NOTE Confidence: 0.918599632

00:38:03.600 --> 00:38:06.554 that's why I thought it was pertinent

NOTE Confidence: 0.918599632

00:38:06.554 --> 00:38:09.266 to our discussion tonight and overall

NOTE Confidence: 0.918599632

00:38:09.266 --> 00:38:11.589 survival was actually increased.

NOTE Confidence: 0.918599632

00:38:11.590 --> 00:38:12.580 When you.

NOTE Confidence: 0.635121571

00:38:16.320 --> 00:38:20.840 I distracted by Vicks. Screenshot there,

NOTE Confidence: 0.635121571

00:38:20.840 --> 00:38:23.765 so overall survival was increased.

NOTE Confidence: 0.635121571

00:38:23.770 --> 00:38:26.929 If if you use SBRT to ablate all lesions

NOTE Confidence: 0.635121571

00:38:26.929 --> 00:38:29.647 after standard of care chemotherapy,

NOTE Confidence: 0.635121571

00:38:29.650 --> 00:38:33.418 so increasingly we're seeing referrals for  
NOTE Confidence: 0.635121571

00:38:33.418 --> 00:38:36.797 patients who finished chemotherapy and may  
NOTE Confidence: 0.635121571

00:38:36.797 --> 00:38:39.925 have one to five liver metastases or one  
NOTE Confidence: 0.635121571

00:38:40.014 --> 00:38:43.356 lung metastasis and one liver metastasis.  
NOTE Confidence: 0.635121571

00:38:43.360 --> 00:38:45.135 And actually, I'll mention that  
NOTE Confidence: 0.635121571

00:38:45.135 --> 00:38:47.784 we are getting a new linac called  
NOTE Confidence: 0.635121571

00:38:47.784 --> 00:38:49.600 the reflection probably installed.  
NOTE Confidence: 0.635121571

00:38:49.600 --> 00:38:50.908 Within the next year,  
NOTE Confidence: 0.635121571

00:38:50.908 --> 00:38:53.679 we're going to be one of the first  
NOTE Confidence: 0.635121571

00:38:53.679 --> 00:38:56.227 in the nation to get this installed,  
NOTE Confidence: 0.635121571

00:38:56.230 --> 00:38:59.786 so Stanford has one now and I  
NOTE Confidence: 0.635121571

00:38:59.786 --> 00:39:01.526 think we'll probably be third,  
NOTE Confidence: 0.635121571

00:39:01.530 --> 00:39:03.888 but the benefit of this is you can treat  
NOTE Confidence: 0.635121571

00:39:03.888 --> 00:39:05.709 multiple alignments at the same time.  
NOTE Confidence: 0.635121571

00:39:05.710 --> 00:39:08.070 So now if I put a patient on the machine,  
NOTE Confidence: 0.635121571

00:39:08.070 --> 00:39:10.798 I have to allot 30 minutes for each

NOTE Confidence: 0.635121571

00:39:10.798 --> 00:39:12.675 oligo metastatic site on the reflection

NOTE Confidence: 0.635121571

00:39:12.675 --> 00:39:15.090 I can treat 5 at the same time,

NOTE Confidence: 0.635121571

00:39:15.090 --> 00:39:17.915 so it really increases output

NOTE Confidence: 0.635121571

00:39:17.915 --> 00:39:19.610 and also decreases.

NOTE Confidence: 0.635121571

00:39:19.610 --> 00:39:21.130 You know patient burden.

NOTE Confidence: 0.635121571

00:39:21.130 --> 00:39:23.410 The other thing that the reflection

NOTE Confidence: 0.635121571

00:39:23.476 --> 00:39:25.246 does is tracks based on PET.

NOTE Confidence: 0.635121571

00:39:25.250 --> 00:39:28.043 So we'll be infusing pet tracer in

NOTE Confidence: 0.635121571

00:39:28.043 --> 00:39:30.652 our department and then the machine

NOTE Confidence: 0.635121571

00:39:30.652 --> 00:39:33.316 communicates with the pet tracer and

NOTE Confidence: 0.635121571

00:39:33.316 --> 00:39:35.919 we'll track the tumor based on pet

NOTE Confidence: 0.635121571

00:39:35.919 --> 00:39:38.639 and move with the tip tumor during

NOTE Confidence: 0.635121571

00:39:38.639 --> 00:39:40.854 treatment again to tighten radiation

NOTE Confidence: 0.635121571

00:39:40.854 --> 00:39:43.301 dose and the other exciting thing

NOTE Confidence: 0.635121571

00:39:43.301 --> 00:39:45.988 is right that we can create a lot

NOTE Confidence: 0.635121571

00:39:45.988 --> 00:39:48.850 of advances in new bio tracers.

NOTE Confidence: 0.635121571

00:39:48.850 --> 00:39:52.527 For patients who have molecular targets.

NOTE Confidence: 0.635121571

00:39:52.527 --> 00:39:55.389 Sorry my leg keeps hurting though.

NOTE Confidence: 0.635121571

00:39:55.390 --> 00:39:57.820 OK.

NOTE Confidence: 0.635121571

00:39:57.820 --> 00:39:59.868 So those are me going into the nitty

NOTE Confidence: 0.635121571

00:39:59.868 --> 00:40:01.593 gritty of radiation techniques and I

NOTE Confidence: 0.635121571

00:40:01.593 --> 00:40:03.889 hope I have not bored you to tears.

NOTE Confidence: 0.635121571

00:40:03.890 --> 00:40:06.362 I'm going to touch a little bit on

NOTE Confidence: 0.635121571

00:40:06.362 --> 00:40:08.300 short course versus long course,

NOTE Confidence: 0.635121571

00:40:08.300 --> 00:40:10.827 and then we'll we'll talk a little

NOTE Confidence: 0.635121571

00:40:10.827 --> 00:40:11.927 bit about T&T.

NOTE Confidence: 0.635121571

00:40:11.927 --> 00:40:14.189 So the data for short course

NOTE Confidence: 0.635121571

00:40:14.189 --> 00:40:15.320 versus long course,

NOTE Confidence: 0.635121571

00:40:15.320 --> 00:40:17.090 I think is really mixed and

NOTE Confidence: 0.635121571

00:40:17.090 --> 00:40:17.975 challenging to interpret,

NOTE Confidence: 0.635121571

00:40:17.980 --> 00:40:19.240 and I think the problem is is,

NOTE Confidence: 0.635121571

00:40:19.240 --> 00:40:21.660 as doctor Shakini touched on,

NOTE Confidence: 0.635121571

00:40:21.660 --> 00:40:24.642 a lot of the studies are comparing

NOTE Confidence: 0.635121571

00:40:24.642 --> 00:40:27.349 short course T&T versus standard.

NOTE Confidence: 0.635121571

00:40:27.350 --> 00:40:27.808 On course,

NOTE Confidence: 0.635121571

00:40:27.808 --> 00:40:30.560 so you don't know if it's the TNT or if it's

NOTE Confidence: 0.635121571

00:40:30.560 --> 00:40:32.569 the short course that's causing the benefit,

NOTE Confidence: 0.635121571

00:40:32.570 --> 00:40:34.460 right?

NOTE Confidence: 0.635121571

00:40:34.460 --> 00:40:36.368 So I always start back at

NOTE Confidence: 0.635121571

00:40:36.368 --> 00:40:37.640 this old Polish study,

NOTE Confidence: 0.635121571

00:40:37.640 --> 00:40:40.265 which is a classic study looking at

NOTE Confidence: 0.635121571

00:40:40.265 --> 00:40:42.418 advanced tumors randomized to short course,

NOTE Confidence: 0.635121571

00:40:42.420 --> 00:40:44.610 followed by surgery followed by

NOTE Confidence: 0.635121571

00:40:44.610 --> 00:40:46.800 chemo versus standard long course

NOTE Confidence: 0.635121571

00:40:46.800 --> 00:40:49.050 followed by surgery followed by chemo.

NOTE Confidence: 0.635121571

00:40:49.050 --> 00:40:50.330 No difference in outcomes.

NOTE Confidence: 0.635121571

00:40:50.330 --> 00:40:52.762 But what I in terms of local  
NOTE Confidence: 0.635121571

00:40:52.762 --> 00:40:54.538 control or overall survival.  
NOTE Confidence: 0.635121571

00:40:54.540 --> 00:40:59.350 But I will point out that.  
NOTE Confidence: 0.635121571

00:40:59.350 --> 00:41:02.830 If you look at patients.  
NOTE Confidence: 0.635121571

00:41:02.830 --> 00:41:06.344 Who have so in this Trog study,  
NOTE Confidence: 0.635121571

00:41:06.350 --> 00:41:08.625 which asked a similar question  
NOTE Confidence: 0.635121571

00:41:08.625 --> 00:41:09.990 for advanced patients.  
NOTE Confidence: 0.635121571

00:41:09.990 --> 00:41:12.175 Again no difference in local  
NOTE Confidence: 0.635121571

00:41:12.175 --> 00:41:13.486 controller overall survival,  
NOTE Confidence: 0.635121571

00:41:13.490 --> 00:41:15.242 but I think the important thing  
NOTE Confidence: 0.635121571

00:41:15.242 --> 00:41:17.560 to note is that for our patients  
NOTE Confidence: 0.635121571

00:41:17.560 --> 00:41:20.132 with distal tumors there was not  
NOTE Confidence: 0.635121571

00:41:20.132 --> 00:41:22.108 a statistically significant but  
NOTE Confidence: 0.635121571

00:41:22.108 --> 00:41:23.590 an absolute numbers.  
NOTE Confidence: 0.635121571

00:41:23.590 --> 00:41:25.534 Hard to ignore difference in terms  
NOTE Confidence: 0.635121571

00:41:25.534 --> 00:41:27.398 of local control, so I think.

NOTE Confidence: 0.8751437

00:41:30.050 --> 00:41:31.835 For all of us, we're still a

NOTE Confidence: 0.8751437

00:41:31.835 --> 00:41:33.289 little bit weary about using

NOTE Confidence: 0.8751437

00:41:33.290 --> 00:41:36.230 short course for distal patients.

NOTE Confidence: 0.8751437

00:41:36.230 --> 00:41:38.454 Because of this data, and I can let

NOTE Confidence: 0.8751437

00:41:38.454 --> 00:41:40.467 Vick touch on that in his opinion,

NOTE Confidence: 0.8751437

00:41:40.470 --> 00:41:43.837 when he gets a chance to speak.

NOTE Confidence: 0.8751437

00:41:43.840 --> 00:41:46.144 I think this is interesting because

NOTE Confidence: 0.8751437

00:41:46.144 --> 00:41:48.131 so traditionally for short course

NOTE Confidence: 0.8751437

00:41:48.131 --> 00:41:50.051 radiation we were following by

NOTE Confidence: 0.8751437

00:41:50.051 --> 00:41:52.361 immediate surgery and so the question

NOTE Confidence: 0.8751437

00:41:52.361 --> 00:41:54.479 asked in the Stockholm three trial

NOTE Confidence: 0.8751437

00:41:54.479 --> 00:41:56.375 right was short course followed

NOTE Confidence: 0.8751437

00:41:56.375 --> 00:41:58.350 by immediate surgery versus short

NOTE Confidence: 0.8751437

00:41:58.350 --> 00:42:00.236 course followed by delayed surgery

NOTE Confidence: 0.8751437

00:42:00.236 --> 00:42:01.961 versus long course where strangely

NOTE Confidence: 0.8751437

00:42:01.961 --> 00:42:03.880 they did not use chemotherapy.

NOTE Confidence: 0.8751437

00:42:03.880 --> 00:42:05.938 So I think that's a hard comparison.

NOTE Confidence: 0.8751437

00:42:05.940 --> 00:42:07.068 So in my mind,

NOTE Confidence: 0.8751437

00:42:07.068 --> 00:42:09.238 I look at this trial and interpret

NOTE Confidence: 0.8751437

00:42:09.238 --> 00:42:11.668 it as should we doing short

NOTE Confidence: 0.8751437

00:42:11.668 --> 00:42:13.680 course followed by immediate.

NOTE Confidence: 0.8751437

00:42:13.680 --> 00:42:15.815 Surgery or should we be doing short

NOTE Confidence: 0.8751437

00:42:15.815 --> 00:42:17.690 course followed by delayed surgery?

NOTE Confidence: 0.8751437

00:42:17.690 --> 00:42:18.646 Everyone had a TM.

NOTE Confidence: 0.8751437

00:42:18.646 --> 00:42:20.080 There was no difference in the

NOTE Confidence: 0.8751437

00:42:20.137 --> 00:42:21.847 outcomes in terms of local control,

NOTE Confidence: 0.8751437

00:42:21.850 --> 00:42:23.610 Mets or overall survival.

NOTE Confidence: 0.818020557684211

00:42:25.950 --> 00:42:28.430 And so the final outcome was that short

NOTE Confidence: 0.818020557684211

00:42:28.430 --> 00:42:30.764 course with delay was noninferior to

NOTE Confidence: 0.818020557684211

00:42:30.764 --> 00:42:32.824 short course with immediate surgery.

NOTE Confidence: 0.818020557684211

00:42:32.830 --> 00:42:34.671 I think the important thing to note

NOTE Confidence: 0.818020557684211

00:42:34.671 --> 00:42:37.081 is that the past CR for patients who

NOTE Confidence: 0.818020557684211

00:42:37.081 --> 00:42:38.963 had immediate surgery right was a

NOTE Confidence: 0.818020557684211

00:42:38.963 --> 00:42:41.019 lot lower than the path CR rate for

NOTE Confidence: 0.818020557684211

00:42:41.019 --> 00:42:42.336 patients who had delayed surgery.

NOTE Confidence: 0.818020557684211

00:42:42.336 --> 00:42:44.690 So I think right when Vick and I share

NOTE Confidence: 0.818020557684211

00:42:44.690 --> 00:42:46.356 patience and we do give them short

NOTE Confidence: 0.818020557684211

00:42:46.412 --> 00:42:48.074 course therapy, we're increasingly

NOTE Confidence: 0.818020557684211

00:42:48.074 --> 00:42:50.726 doing that with delay to surgery.

NOTE Confidence: 0.818020557684211

00:42:50.730 --> 00:42:52.522 I guess the question Mike would be do

NOTE Confidence: 0.818020557684211

00:42:52.522 --> 00:42:54.468 we give chemotherapy in that interim?

NOTE Confidence: 0.818020557684211

00:42:54.470 --> 00:42:55.774 Or do we just?

NOTE Confidence: 0.818020557684211

00:42:55.774 --> 00:42:57.078 Relay them to surgery.

NOTE Confidence: 0.818020557684211

00:42:57.080 --> 00:42:59.944 The concern was that there would be more.

NOTE Confidence: 0.818020557684211

00:42:59.950 --> 00:43:01.605 Complications if you don't take

NOTE Confidence: 0.818020557684211

00:43:01.605 --> 00:43:03.770 the \*\*\*\*\* out right away after

NOTE Confidence: 0.818020557684211

00:43:03.770 --> 00:43:05.645 high dose short course radiation,  
NOTE Confidence: 0.818020557684211

00:43:05.650 --> 00:43:07.115 but in fact postop complications  
NOTE Confidence: 0.818020557684211

00:43:07.115 --> 00:43:09.140 were lower in the patients who had  
NOTE Confidence: 0.818020557684211

00:43:09.140 --> 00:43:10.664 a short course followed by delay.  
NOTE Confidence: 0.82495301125

00:43:14.670 --> 00:43:18.606 So finally T&T and I'll make this short,  
NOTE Confidence: 0.82495301125

00:43:18.610 --> 00:43:21.262 because I think Mike really covered  
NOTE Confidence: 0.82495301125

00:43:21.262 --> 00:43:23.764 this well, so I think this is an  
NOTE Confidence: 0.82495301125

00:43:23.764 --> 00:43:25.798 interesting study that sort of sets the  
NOTE Confidence: 0.82495301125

00:43:25.798 --> 00:43:27.581 groundwork for the TNT approach, right?  
NOTE Confidence: 0.82495301125

00:43:27.581 --> 00:43:29.207 It's only a phase two trial.  
NOTE Confidence: 0.82495301125

00:43:29.210 --> 00:43:31.378 It's a small trial.  
NOTE Confidence: 0.82495301125

00:43:31.378 --> 00:43:33.216 Well, 250 patients are not so small,  
NOTE Confidence: 0.82495301125

00:43:33.220 --> 00:43:35.569 but non randomized,  
NOTE Confidence: 0.82495301125

00:43:35.570 --> 00:43:38.902 and we're really looking at long course,  
NOTE Confidence: 0.82495301125

00:43:38.902 --> 00:43:42.838 followed by surgery or increasing cycles.  
NOTE Confidence: 0.82495301125

00:43:42.840 --> 00:43:46.080 Full Fox prior to surgery and you see that

NOTE Confidence: 0.82495301125

00:43:46.080 --> 00:43:49.315 within each cycle of folfox prior to surgery,

NOTE Confidence: 0.82495301125

00:43:49.320 --> 00:43:52.320 the past CR rate is increasing.

NOTE Confidence: 0.82495301125

00:43:52.320 --> 00:43:53.360 So in my mind,

NOTE Confidence: 0.82495301125

00:43:53.360 --> 00:43:55.752 this is sort of like the setup for

NOTE Confidence: 0.82495301125

00:43:55.752 --> 00:43:57.652 thinking about the TNT approach

NOTE Confidence: 0.82495301125

00:43:57.652 --> 00:43:59.400 and then Polish to Mike.

NOTE Confidence: 0.82495301125

00:43:59.400 --> 00:44:00.576 I think you touched on this,

NOTE Confidence: 0.82495301125

00:44:00.580 --> 00:44:03.220 so I'll also be quick,

NOTE Confidence: 0.82495301125

00:44:03.220 --> 00:44:05.957 but really we're looking at patients who

NOTE Confidence: 0.82495301125

00:44:05.957 --> 00:44:08.330 have again locally advanced disease,

NOTE Confidence: 0.82495301125

00:44:08.330 --> 00:44:12.150 randomized to long course.

NOTE Confidence: 0.82495301125

00:44:12.150 --> 00:44:13.805 Followed by surgery versus short

NOTE Confidence: 0.82495301125

00:44:13.805 --> 00:44:15.129 course chemo and TMB.

NOTE Confidence: 0.82495301125

00:44:15.130 --> 00:44:16.300 So now the problem is right.

NOTE Confidence: 0.82495301125

00:44:16.300 --> 00:44:17.596 We're looking at two different questions.

NOTE Confidence: 0.82495301125

00:44:17.600 --> 00:44:20.771 We're looking at short course and neoadjuvant

NOTE Confidence: 0.82495301125

00:44:20.771 --> 00:44:23.246 chemo at the same time as we're looking

NOTE Confidence: 0.82495301125

00:44:23.246 --> 00:44:25.370 at long course versus short course,

NOTE Confidence: 0.82495301125

00:44:25.370 --> 00:44:27.520 but no difference in outcomes

NOTE Confidence: 0.82495301125

00:44:27.520 --> 00:44:29.670 in terms of local control.

NOTE Confidence: 0.82495301125

00:44:29.670 --> 00:44:32.070 Distant meds are zero resections.

NOTE Confidence: 0.82495301125

00:44:32.070 --> 00:44:34.760 Past CR.

NOTE Confidence: 0.82495301125

00:44:34.760 --> 00:44:36.968 And those three year overall survival

NOTE Confidence: 0.82495301125

00:44:36.968 --> 00:44:38.940 was higher with short course.

NOTE Confidence: 0.82495301125

00:44:38.940 --> 00:44:39.752 But the question is,

NOTE Confidence: 0.82495301125

00:44:39.752 --> 00:44:41.275 is it higher because of the short

NOTE Confidence: 0.82495301125

00:44:41.275 --> 00:44:42.580 course or it's probably higher?

NOTE Confidence: 0.82495301125

00:44:42.580 --> 00:44:44.788 I would say because of the

NOTE Confidence: 0.82495301125

00:44:44.788 --> 00:44:46.890 full Fox prior to surgery.

NOTE Confidence: 0.913632164444444

00:44:50.020 --> 00:44:53.296 And then if we look at long term follow-up,

NOTE Confidence: 0.913632164444444

00:44:53.300 --> 00:44:58.316 the overall survival difference was lost.

NOTE Confidence: 0.913632164444444  
00:44:58.320 --> 00:45:01.698 For Polish two and then Stella,  
NOTE Confidence: 0.913632164444444  
00:45:01.700 --> 00:45:05.034 I think we we did discuss quite well,  
NOTE Confidence: 0.913632164444444  
00:45:05.034 --> 00:45:07.596 so I'll briefly talk about this,  
NOTE Confidence: 0.913632164444444  
00:45:07.600 --> 00:45:09.896 but again, this was looking at Preop  
NOTE Confidence: 0.913632164444444  
00:45:09.896 --> 00:45:11.214 short course radiation followed  
NOTE Confidence: 0.913632164444444  
00:45:11.214 --> 00:45:13.160 by chemo and whether it was not  
NOTE Confidence: 0.913632164444444  
00:45:13.160 --> 00:45:14.900 inferior to long course chemo,  
NOTE Confidence: 0.913632164444444  
00:45:14.900 --> 00:45:16.260 radiation and patient with  
NOTE Confidence: 0.913632164444444  
00:45:16.260 --> 00:45:17.280 locally advanced disease.  
NOTE Confidence: 0.913632164444444  
00:45:17.280 --> 00:45:19.632 So patients are getting short course  
NOTE Confidence: 0.913632164444444  
00:45:19.632 --> 00:45:22.318 followed by 4 cycles of chemo followed  
NOTE Confidence: 0.913632164444444  
00:45:22.318 --> 00:45:25.306 by surgery and randomized to either  
NOTE Confidence: 0.913632164444444  
00:45:25.306 --> 00:45:28.850 TNT or loan course chemoradiation.  
NOTE Confidence: 0.913632164444444  
00:45:28.850 --> 00:45:30.590 And there was no difference in  
NOTE Confidence: 0.913632164444444  
00:45:30.590 --> 00:45:32.370 survival or local regional recurrence.  
NOTE Confidence: 0.913632164444444

00:45:32.370 --> 00:45:35.408 The TNT group actually had better three  
NOTE Confidence: 0.913632164444444

00:45:35.408 --> 00:45:38.630 year overall survival and acute Grade  
NOTE Confidence: 0.913632164444444

00:45:38.630 --> 00:45:42.409 3 toxicities during preop treatment  
NOTE Confidence: 0.913632164444444

00:45:42.410 --> 00:45:45.364 were slightly higher in the TNT group  
NOTE Confidence: 0.913632164444444

00:45:45.364 --> 00:45:47.220 versus in the Chemo Radiation group.  
NOTE Confidence: 0.913632164444444

00:45:47.220 --> 00:45:48.588 But I think we found this  
NOTE Confidence: 0.913632164444444

00:45:48.588 --> 00:45:49.500 is tolerable for patients.  
NOTE Confidence: 0.913632164444444

00:45:49.500 --> 00:45:51.516 So as Michael said, I think we're  
NOTE Confidence: 0.913632164444444

00:45:51.516 --> 00:45:53.450 moving more and more towards T&T.  
NOTE Confidence: 0.913632164444444

00:45:53.450 --> 00:45:55.170 For most of our patients.  
NOTE Confidence: 0.913632164444444

00:45:55.170 --> 00:45:57.690 Based on these studies.  
NOTE Confidence: 0.913632164444444

00:45:57.690 --> 00:46:00.840 Rapido I think Doctor Jacchini also.  
NOTE Confidence: 0.52953102

00:46:06.400 --> 00:46:09.692 Four and two. Looking at  
NOTE Confidence: 0.52953102

00:46:09.692 --> 00:46:11.236 standard long course treatment.  
NOTE Confidence: 0.756452546

00:46:13.270 --> 00:46:18.290 Versus short course chemo TMDE.  
NOTE Confidence: 0.756452546

00:46:18.290 --> 00:46:22.950 With past CR higher with T&T.

NOTE Confidence: 0.756452546

00:46:22.950 --> 00:46:26.550 And distant means lower with TNT,

NOTE Confidence: 0.756452546

00:46:26.550 --> 00:46:30.323 so again, I think supporting our our

NOTE Confidence: 0.756452546

00:46:30.323 --> 00:46:33.179 practice change more towards TNT.

NOTE Confidence: 0.756452546

00:46:33.180 --> 00:46:34.630 I've NCCN guidelines in here.

NOTE Confidence: 0.756452546

00:46:34.630 --> 00:46:35.617 I don't think we need to review

NOTE Confidence: 0.756452546

00:46:35.617 --> 00:46:36.677 them because we cannot look at them,

NOTE Confidence: 0.756452546

00:46:36.680 --> 00:46:41.584 but basically supporting more the use of TNT.

NOTE Confidence: 0.756452546

00:46:41.590 --> 00:46:42.650 So that's what I had.

NOTE Confidence: 0.756452546

00:46:42.650 --> 00:46:44.530 I'm happy to take questions.

NOTE Confidence: 0.756452546

00:46:44.530 --> 00:46:45.772 I went fast, but it's getting

NOTE Confidence: 0.756452546

00:46:45.772 --> 00:46:47.292 late so I don't want to keep

NOTE Confidence: 0.756452546

00:46:47.292 --> 00:46:48.720 everyone on the line too long.

NOTE Confidence: 0.6685114133333333

00:46:55.210 --> 00:46:56.416 We hand it over to you.

NOTE Confidence: 0.83438848

00:47:03.950 --> 00:47:05.822 Oh, I need to stop my screen share right?

NOTE Confidence: 0.943436542

00:47:34.930 --> 00:47:39.018 Can you see my screen? Yes, looks perfect.

NOTE Confidence: 0.73946904

00:47:41.130 --> 00:47:41.990 So I'm back ready.  
NOTE Confidence: 0.73946904

00:47:41.990 --> 00:47:43.530 I'm one of the colorectal surgeons here.  
NOTE Confidence: 0.73946904

00:47:43.530 --> 00:47:45.735 I'm going to talk about the surgical  
NOTE Confidence: 0.73946904

00:47:45.735 --> 00:47:47.130 management of rectal cancer.  
NOTE Confidence: 0.73946904

00:47:47.130 --> 00:47:49.650 I want to echo what Kim said.  
NOTE Confidence: 0.73946904

00:47:49.650 --> 00:47:52.020 This is truly a multidisciplinary approach,  
NOTE Confidence: 0.73946904

00:47:52.020 --> 00:47:53.064 and if anything,  
NOTE Confidence: 0.73946904

00:47:53.064 --> 00:47:55.970 I actually use more services than I think.  
NOTE Confidence: 0.73946904

00:47:55.970 --> 00:47:57.503 Mike and Kim,  
NOTE Confidence: 0.73946904

00:47:57.503 --> 00:48:01.080 with the Intrastromal therapy nurses we use.  
NOTE Confidence: 0.73946904

00:48:01.080 --> 00:48:04.356 We use our anesthesiologist and without  
NOTE Confidence: 0.73946904

00:48:04.356 --> 00:48:07.536 all of these people surgical management  
NOTE Confidence: 0.73946904

00:48:07.536 --> 00:48:10.524 of rectal cancer will be impossible.  
NOTE Confidence: 0.73946904

00:48:10.530 --> 00:48:13.098 Before we talk about the surgical.  
NOTE Confidence: 0.73946904

00:48:13.100 --> 00:48:14.448 The management of surgery.  
NOTE Confidence: 0.73946904

00:48:14.448 --> 00:48:17.462 I think it's it's important to look at the

NOTE Confidence: 0.73946904

00:48:17.462 --> 00:48:19.618 origins of of surgery for rectal cancer.

NOTE Confidence: 0.73946904

00:48:19.620 --> 00:48:21.580 Surgery was usually very limited,

NOTE Confidence: 0.73946904

00:48:21.580 --> 00:48:23.380 mainly because of the high

NOTE Confidence: 0.73946904

00:48:23.380 --> 00:48:24.460 morbidity and mortality.

NOTE Confidence: 0.73946904

00:48:24.460 --> 00:48:28.500 This is like in the pre 1900s.

NOTE Confidence: 0.73946904

00:48:28.500 --> 00:48:30.186 Most of the rectal cancers were

NOTE Confidence: 0.73946904

00:48:30.186 --> 00:48:31.310 treated by transient illusion.

NOTE Confidence: 0.73946904

00:48:31.310 --> 00:48:34.556 It was described by Lisfranc initially.

NOTE Confidence: 0.73946904

00:48:34.560 --> 00:48:37.050 It wasn't until 1907 that the

NOTE Confidence: 0.73946904

00:48:37.050 --> 00:48:38.710 traditional proctectomy that we

NOTE Confidence: 0.73946904

00:48:38.787 --> 00:48:40.928 see nowadays was described this.

NOTE Confidence: 0.73946904

00:48:40.928 --> 00:48:42.768 This involves both an abdominal

NOTE Confidence: 0.73946904

00:48:42.768 --> 00:48:43.872 and perennial approach,

NOTE Confidence: 0.73946904

00:48:43.880 --> 00:48:45.406 and it was the abdominal perineal resection.

NOTE Confidence: 0.859235435294118

00:48:47.690 --> 00:48:50.813 And it wasn't until 75 years later that the

NOTE Confidence: 0.859235435294118

00:48:50.813 --> 00:48:53.596 holy plane of surgery that we currently

NOTE Confidence: 0.859235435294118

00:48:53.596 --> 00:48:56.830 use was described by Bill Hill in 1982.

NOTE Confidence: 0.859235435294118

00:48:56.830 --> 00:49:00.032 Now, in between 1907 and 1982 some

NOTE Confidence: 0.859235435294118

00:49:00.032 --> 00:49:01.787 surgeons were still doing PME,

NOTE Confidence: 0.859235435294118

00:49:01.790 --> 00:49:03.666 even though they didn't call it PME,

NOTE Confidence: 0.859235435294118

00:49:03.670 --> 00:49:05.746 but because they weren't doing tme.

NOTE Confidence: 0.859235435294118

00:49:05.750 --> 00:49:06.878 They were persistent,

NOTE Confidence: 0.859235435294118

00:49:06.878 --> 00:49:09.134 high local recurrence rates and because

NOTE Confidence: 0.859235435294118

00:49:09.134 --> 00:49:11.749 of this there was a lot of interest

NOTE Confidence: 0.859235435294118

00:49:11.749 --> 00:49:13.569 in both chemotherapy and radiation.

NOTE Confidence: 0.859235435294118

00:49:13.570 --> 00:49:15.778 In addition to surgery for the

NOTE Confidence: 0.859235435294118

00:49:15.778 --> 00:49:17.250 management of rectal cancer.

NOTE Confidence: 0.859235435294118

00:49:17.250 --> 00:49:19.385 So the role of chemotherapy and radiation

NOTE Confidence: 0.859235435294118

00:49:19.385 --> 00:49:21.810 was mainly to decrease local recurrence,

NOTE Confidence: 0.859235435294118

00:49:21.810 --> 00:49:24.315 improve surgical resection of non

NOTE Confidence: 0.859235435294118

00:49:24.315 --> 00:49:26.319 resectable lesions and sphincter

NOTE Confidence: 0.859235435294118  
00:49:26.319 --> 00:49:28.666 preservation and low lying rectal tumors.  
NOTE Confidence: 0.859235435294118  
00:49:28.670 --> 00:49:31.390 We went through a phase of several trials.  
NOTE Confidence: 0.859235435294118  
00:49:31.390 --> 00:49:32.929 I'm not going to go through all the trials.  
NOTE Confidence: 0.859235435294118  
00:49:32.930 --> 00:49:33.942 Pretty much.  
NOTE Confidence: 0.859235435294118  
00:49:33.942 --> 00:49:36.472 They all showed that multimodality  
NOTE Confidence: 0.859235435294118  
00:49:36.472 --> 00:49:38.830 treatment decreased local recurrence.  
NOTE Confidence: 0.859235435294118  
00:49:38.830 --> 00:49:40.102 So one of the important trials  
NOTE Confidence: 0.859235435294118  
00:49:40.102 --> 00:49:41.709 that I'm going to mention is this.  
NOTE Confidence: 0.859235435294118  
00:49:41.710 --> 00:49:42.316 Dutch tme trial.  
NOTE Confidence: 0.859235435294118  
00:49:42.316 --> 00:49:44.075 Now if you look at all the studies  
NOTE Confidence: 0.859235435294118  
00:49:44.075 --> 00:49:45.525 where they did surgery alone,  
NOTE Confidence: 0.859235435294118  
00:49:45.530 --> 00:49:48.410 local recurrence was about 2825%.  
NOTE Confidence: 0.859235435294118  
00:49:48.410 --> 00:49:49.510 When they added radiation,  
NOTE Confidence: 0.859235435294118  
00:49:49.510 --> 00:49:51.729 it dropped it down to about 12 to 14%,  
NOTE Confidence: 0.859235435294118  
00:49:51.730 --> 00:49:53.978 but if you look at the Dutch TME  
NOTE Confidence: 0.859235435294118

00:49:53.978 --> 00:49:56.049 trial surgery alone by just following  
NOTE Confidence: 0.859235435294118

00:49:56.049 --> 00:49:58.215 good surgical principles at a local  
NOTE Confidence: 0.859235435294118

00:49:58.276 --> 00:50:00.046 recurrence rate of about 10%,  
NOTE Confidence: 0.859235435294118

00:50:00.050 --> 00:50:01.714 you throw in radiation.  
NOTE Confidence: 0.859235435294118

00:50:01.714 --> 00:50:04.146 After that we dropped it down to 5%,  
NOTE Confidence: 0.859235435294118

00:50:04.150 --> 00:50:07.456 so DME becomes the standard no.  
NOTE Confidence: 0.859235435294118

00:50:07.460 --> 00:50:09.296 You know we just debated between  
NOTE Confidence: 0.859235435294118

00:50:09.296 --> 00:50:10.930 short and long hours chemo,  
NOTE Confidence: 0.859235435294118

00:50:10.930 --> 00:50:11.920 radiation versus radiation,  
NOTE Confidence: 0.859235435294118

00:50:11.920 --> 00:50:14.620 and then we finally come to this study,  
NOTE Confidence: 0.859235435294118

00:50:14.620 --> 00:50:16.300 which kind of established what we  
NOTE Confidence: 0.859235435294118

00:50:16.300 --> 00:50:18.425 do right now or what we used to  
NOTE Confidence: 0.859235435294118

00:50:18.425 --> 00:50:20.828 do about 10 years ago and that was  
NOTE Confidence: 0.859235435294118

00:50:20.828 --> 00:50:22.700 preoperative chemotherapy and radiation,  
NOTE Confidence: 0.859235435294118

00:50:22.700 --> 00:50:24.716 followed by surgery followed by chemotherapy.  
NOTE Confidence: 0.859235435294118

00:50:24.720 --> 00:50:28.060 Local recurrence was about 6%.

NOTE Confidence: 0.859235435294118

00:50:28.060 --> 00:50:29.764 So the summary of the trials

NOTE Confidence: 0.859235435294118

00:50:29.764 --> 00:50:31.305 basically showed that PME surgery

NOTE Confidence: 0.859235435294118

00:50:31.305 --> 00:50:33.020 was important for all patients.

NOTE Confidence: 0.859235435294118

00:50:33.020 --> 00:50:35.708 It really brought the local countries.

NOTE Confidence: 0.859235435294118

00:50:35.710 --> 00:50:38.120 And then pre-op chemoradiation with

NOTE Confidence: 0.859235435294118

00:50:38.120 --> 00:50:41.318 surgery and chemotherapy was the way to go.

NOTE Confidence: 0.859235435294118

00:50:41.320 --> 00:50:43.790 So now in recent times this I'm

NOTE Confidence: 0.859235435294118

00:50:43.790 --> 00:50:45.800 talking about 5 plus years ago

NOTE Confidence: 0.859235435294118

00:50:45.800 --> 00:50:47.375 patients got endoscopy.

NOTE Confidence: 0.859235435294118

00:50:47.375 --> 00:50:49.475 They got transrectal ultrasound.

NOTE Confidence: 0.859235435294118

00:50:49.480 --> 00:50:51.560 And they have two options.

NOTE Confidence: 0.859235435294118

00:50:51.560 --> 00:50:53.720 One, if it was an early stage cancer,

NOTE Confidence: 0.859235435294118

00:50:53.720 --> 00:50:55.760 either P1 or two lesion,

NOTE Confidence: 0.859235435294118

00:50:55.760 --> 00:50:57.866 they went for up front surgery.

NOTE Confidence: 0.859235435294118

00:50:57.870 --> 00:50:58.010 If,

NOTE Confidence: 0.859235435294118

00:50:58.010 --> 00:50:58.570 on the other hand,  
NOTE Confidence: 0.859235435294118

00:50:58.570 --> 00:50:59.956 if they have locally advanced cancers,  
NOTE Confidence: 0.859235435294118

00:50:59.960 --> 00:51:02.221 which was any cancer P3 and higher  
NOTE Confidence: 0.859235435294118

00:51:02.221 --> 00:51:03.790 or no positive disease,  
NOTE Confidence: 0.859235435294118

00:51:03.790 --> 00:51:05.525 they got chemoradiation followed by  
NOTE Confidence: 0.859235435294118

00:51:05.525 --> 00:51:06.913 surgery followed by chemotherapy.  
NOTE Confidence: 0.91030978

00:51:09.430 --> 00:51:11.554 Now we went from local pelvic  
NOTE Confidence: 0.91030978

00:51:11.554 --> 00:51:13.866 failure of more than 25% by  
NOTE Confidence: 0.91030978

00:51:13.866 --> 00:51:15.658 changing the surgical technique  
NOTE Confidence: 0.91030978

00:51:15.658 --> 00:51:17.450 and by adding chemoradiation.  
NOTE Confidence: 0.91030978

00:51:17.450 --> 00:51:19.325 We changed our local recurrence  
NOTE Confidence: 0.91030978

00:51:19.325 --> 00:51:21.266 for 25% to about 5 to 10%.  
NOTE Confidence: 0.81423353

00:51:23.740 --> 00:51:26.676 How are about 30 to 40% still went  
NOTE Confidence: 0.81423353

00:51:26.676 --> 00:51:29.616 down to develop distant disease?  
NOTE Confidence: 0.81423353

00:51:29.620 --> 00:51:31.769 Now, none of the trials we looked  
NOTE Confidence: 0.81423353

00:51:31.769 --> 00:51:33.280 at improved overall survival.

NOTE Confidence: 0.81423353

00:51:33.280 --> 00:51:35.200 They established rules for good surgery,

NOTE Confidence: 0.81423353

00:51:35.200 --> 00:51:36.778 radiation and chemotherapy.

NOTE Confidence: 0.81423353

00:51:36.778 --> 00:51:39.934 But they didn't address any micrometastatic

NOTE Confidence: 0.81423353

00:51:39.934 --> 00:51:42.259 disease with upfront chemotherapy.

NOTE Confidence: 0.8096246483333333

00:51:44.750 --> 00:51:46.514 They did not increase patient compliance

NOTE Confidence: 0.8096246483333333

00:51:46.514 --> 00:51:48.829 and they did not increase downstaging.

NOTE Confidence: 0.8096246483333333

00:51:48.830 --> 00:51:52.494 Now with chemoradiation what we saw was that.

NOTE Confidence: 0.8096246483333333

00:51:52.500 --> 00:51:53.776 Pathologic complete response was

NOTE Confidence: 0.8096246483333333

00:51:53.776 --> 00:51:55.960 noted in anywhere from 10 to 15%,

NOTE Confidence: 0.8096246483333333

00:51:55.960 --> 00:51:58.320 but the question was can we do more

NOTE Confidence: 0.8096246483333333

00:51:58.320 --> 00:51:59.916 and this is where T&T comes in.

NOTE Confidence: 0.8096246483333333

00:51:59.920 --> 00:52:01.760 There were a bunch of trials I'm not

NOTE Confidence: 0.8096246483333333

00:52:01.760 --> 00:52:03.546 going to go through all the trials

NOTE Confidence: 0.8096246483333333

00:52:03.546 --> 00:52:05.439 because Mike and Kim did a good job.

NOTE Confidence: 0.8096246483333333

00:52:05.440 --> 00:52:07.967 And pretty much every trial talks about

NOTE Confidence: 0.8096246483333333

00:52:07.967 --> 00:52:10.159 increase in Pathologic complete response.  
NOTE Confidence: 0.8096246483333333

00:52:10.160 --> 00:52:12.392 Now the reason I focus only on this and  
NOTE Confidence: 0.8096246483333333

00:52:12.392 --> 00:52:14.883 not the other stuff is this plays a role  
NOTE Confidence: 0.8096246483333333

00:52:14.883 --> 00:52:17.652 and should we do surgery for rectal cancer  
NOTE Confidence: 0.8096246483333333

00:52:17.652 --> 00:52:21.040 patients underwent total management therapy.  
NOTE Confidence: 0.8096246483333333

00:52:21.040 --> 00:52:22.516 So what are the surgical options?  
NOTE Confidence: 0.8096246483333333

00:52:22.520 --> 00:52:24.984 One TNT changed this so it should not  
NOTE Confidence: 0.8096246483333333

00:52:24.984 --> 00:52:28.121 be an option when we talk about local  
NOTE Confidence: 0.8096246483333333

00:52:28.121 --> 00:52:31.120 excision and more radical surgery like LARP.  
NOTE Confidence: 0.8096246483333333

00:52:31.120 --> 00:52:33.748 Or even exempt for that matter.  
NOTE Confidence: 0.8096246483333333

00:52:33.750 --> 00:52:36.470 So let's talk about watch and wait now.  
NOTE Confidence: 0.8096246483333333

00:52:36.470 --> 00:52:37.990 Now when we talk about watch and wait,  
NOTE Confidence: 0.8096246483333333

00:52:37.990 --> 00:52:39.508 some of the terminology is important.  
NOTE Confidence: 0.8096246483333333

00:52:39.510 --> 00:52:40.974 You know there's differences  
NOTE Confidence: 0.8096246483333333

00:52:40.974 --> 00:52:42.288 between induction, chemotherapy,  
NOTE Confidence: 0.8096246483333333

00:52:42.288 --> 00:52:43.444 consolidation, chemotherapy,

NOTE Confidence: 0.809624648333333  
00:52:43.444 --> 00:52:46.334 and DNMT is basically induction  
NOTE Confidence: 0.809624648333333  
00:52:46.334 --> 00:52:48.390 or consolidation chemotherapy.  
NOTE Confidence: 0.809624648333333  
00:52:48.390 --> 00:52:50.014 Now, Pathologic complete response.  
NOTE Confidence: 0.809624648333333  
00:52:50.014 --> 00:52:53.353 You know the definition of that is important  
NOTE Confidence: 0.809624648333333  
00:52:53.353 --> 00:52:55.861 because it's no evidence on pathology  
NOTE Confidence: 0.809624648333333  
00:52:55.861 --> 00:52:58.427 after proctectomy or full thickness excision.  
NOTE Confidence: 0.809624648333333  
00:52:58.430 --> 00:52:59.578 Now some of these cancers if you  
NOTE Confidence: 0.809624648333333  
00:52:59.578 --> 00:53:00.859 do a full thickness excision,  
NOTE Confidence: 0.809624648333333  
00:53:00.860 --> 00:53:02.492 you could still have tumor behind  
NOTE Confidence: 0.809624648333333  
00:53:02.492 --> 00:53:03.308 the rectal wall,  
NOTE Confidence: 0.809624648333333  
00:53:03.310 --> 00:53:05.285 which can't be excised with  
NOTE Confidence: 0.809624648333333  
00:53:05.285 --> 00:53:06.470 the transanal excision.  
NOTE Confidence: 0.809624648333333  
00:53:06.470 --> 00:53:07.154 So sometimes,  
NOTE Confidence: 0.809624648333333  
00:53:07.154 --> 00:53:09.548 even though we may say on a  
NOTE Confidence: 0.809624648333333  
00:53:09.548 --> 00:53:10.696 transitional excision specimen,  
NOTE Confidence: 0.809624648333333

00:53:10.696 --> 00:53:12.308 that there's pathologic complete  
NOTE Confidence: 0.8096246483333333

00:53:12.308 --> 00:53:14.845 response that may not really be  
NOTE Confidence: 0.8096246483333333

00:53:14.845 --> 00:53:16.138 pathologic complete response.  
NOTE Confidence: 0.8096246483333333

00:53:16.140 --> 00:53:17.712 A few other things.  
NOTE Confidence: 0.8096246483333333

00:53:17.712 --> 00:53:20.070 What is a complete clinical response?  
NOTE Confidence: 0.8096246483333333

00:53:20.070 --> 00:53:22.190 This basically includes 3 things.  
NOTE Confidence: 0.8096246483333333

00:53:22.190 --> 00:53:22.592 One,  
NOTE Confidence: 0.8096246483333333

00:53:22.592 --> 00:53:25.406 there's no evidence of tumor on clinical  
NOTE Confidence: 0.8096246483333333

00:53:25.410 --> 00:53:27.214 endoscopic and radiologic studies  
NOTE Confidence: 0.8096246483333333

00:53:27.214 --> 00:53:29.920 clinical this digital rectal exam endoscopic.  
NOTE Confidence: 0.8096246483333333

00:53:29.920 --> 00:53:31.877 You know with the camera radiologic  
NOTE Confidence: 0.8096246483333333

00:53:31.877 --> 00:53:34.376 is with an MRI and usually the  
NOTE Confidence: 0.8096246483333333

00:53:34.376 --> 00:53:36.987 lesion on endoscopy looks like this.  
NOTE Confidence: 0.8096246483333333

00:53:36.990 --> 00:53:38.230 Here was the rectal cancer.  
NOTE Confidence: 0.8096246483333333

00:53:38.230 --> 00:53:39.466 It's gone now.  
NOTE Confidence: 0.8096246483333333

00:53:39.466 --> 00:53:41.938 You have this whitish scar with

NOTE Confidence: 0.809624648333333  
00:53:41.938 --> 00:53:43.650 some telangiectatic.  
NOTE Confidence: 0.809624648333333  
00:53:43.650 --> 00:53:46.010 Then there's near complete  
NOTE Confidence: 0.809624648333333  
00:53:46.010 --> 00:53:47.190 pathological response,  
NOTE Confidence: 0.809624648333333  
00:53:47.190 --> 00:53:48.850 so some tumor is present.  
NOTE Confidence: 0.809624648333333  
00:53:48.850 --> 00:53:50.218 But if you give it a little bit  
NOTE Confidence: 0.809624648333333  
00:53:50.218 --> 00:53:51.230 more time from radiation,  
NOTE Confidence: 0.809624648333333  
00:53:51.230 --> 00:53:54.160 potentially this area can disappear.  
NOTE Confidence: 0.809624648333333  
00:53:54.160 --> 00:53:57.060 Then there's incomplete pathologic response.  
NOTE Confidence: 0.809624648333333  
00:53:57.060 --> 00:53:58.638 And here you see the ulcer.  
NOTE Confidence: 0.809624648333333  
00:53:58.640 --> 00:53:59.750 You know there's like a bed.  
NOTE Confidence: 0.809624648333333  
00:53:59.750 --> 00:54:01.278 There's some necrotic tissue.  
NOTE Confidence: 0.809624648333333  
00:54:01.278 --> 00:54:04.470 Likely this thing is not going to be  
NOTE Confidence: 0.809624648333333  
00:54:04.470 --> 00:54:06.126 a complete neurological response.  
NOTE Confidence: 0.809624648333333  
00:54:06.130 --> 00:54:08.380 And these three things become important  
NOTE Confidence: 0.809624648333333  
00:54:08.380 --> 00:54:11.758 when we when we talk about watching ready.  
NOTE Confidence: 0.809624648333333

00:54:11.760 --> 00:54:15.456 Now, how did we come to watching late?

NOTE Confidence: 0.809624648333333

00:54:15.460 --> 00:54:18.134 A lot of this started looking at

NOTE Confidence: 0.809624648333333

00:54:18.134 --> 00:54:19.840 anal cancer treatment so long

NOTE Confidence: 0.809624648333333

00:54:19.840 --> 00:54:21.240 time ago for anal cancer,

NOTE Confidence: 0.809624648333333

00:54:21.240 --> 00:54:22.920 so you have to have any PR,

NOTE Confidence: 0.809624648333333

00:54:22.920 --> 00:54:25.520 but then chemotherapy and radiation

NOTE Confidence: 0.809624648333333

00:54:25.520 --> 00:54:27.485 effectively melted away the cancer

NOTE Confidence: 0.809624648333333

00:54:27.485 --> 00:54:30.740 that now we do APR's for anal

NOTE Confidence: 0.809624648333333

00:54:30.740 --> 00:54:33.540 cancer just purely for salvage.

NOTE Confidence: 0.809624648333333

00:54:33.540 --> 00:54:35.316 And for rectal cancer also we

NOTE Confidence: 0.809624648333333

00:54:35.316 --> 00:54:37.629 saw kind of saw it accidentally,

NOTE Confidence: 0.809624648333333

00:54:37.630 --> 00:54:39.976 like patients who had advanced age

NOTE Confidence: 0.809624648333333

00:54:39.980 --> 00:54:41.366 that no surgeon wanted to touch,

NOTE Confidence: 0.809624648333333

00:54:41.370 --> 00:54:42.906 or patients who have high core

NOTE Confidence: 0.809624648333333

00:54:42.906 --> 00:54:44.358 morbidities when we gave them

NOTE Confidence: 0.809624648333333

00:54:44.358 --> 00:54:45.477 chemotherapy and radiation,

NOTE Confidence: 0.809624648333333  
00:54:45.480 --> 00:54:47.440 we saw Pathologic complete response  
NOTE Confidence: 0.809624648333333  
00:54:47.440 --> 00:54:49.400 and as we waited there  
NOTE Confidence: 0.784055472142857  
00:54:49.475 --> 00:54:51.099 tumors did not progress.  
NOTE Confidence: 0.784055472142857  
00:54:51.100 --> 00:54:52.402 And then we have a second group  
NOTE Confidence: 0.784055472142857  
00:54:52.402 --> 00:54:53.732 of patients where you know they  
NOTE Confidence: 0.784055472142857  
00:54:53.732 --> 00:54:54.708 got chemotherapy and radiation.  
NOTE Confidence: 0.784055472142857  
00:54:54.710 --> 00:54:56.858 They didn't see anything inside and  
NOTE Confidence: 0.784055472142857  
00:54:56.858 --> 00:54:59.470 they said why am I doing surgery?  
NOTE Confidence: 0.784055472142857  
00:54:59.470 --> 00:55:01.794 So now we have tried to transition  
NOTE Confidence: 0.784055472142857  
00:55:01.794 --> 00:55:03.612 to more intentional watching weight  
NOTE Confidence: 0.784055472142857  
00:55:03.612 --> 00:55:05.868 where this is for less advanced  
NOTE Confidence: 0.784055472142857  
00:55:05.868 --> 00:55:08.374 disease and if you get the complete  
NOTE Confidence: 0.784055472142857  
00:55:08.374 --> 00:55:09.790 or clinical complete response,  
NOTE Confidence: 0.784055472142857  
00:55:09.790 --> 00:55:12.571 we follow them very closely and we see if  
NOTE Confidence: 0.784055472142857  
00:55:12.571 --> 00:55:15.417 we can get away without doing surgery.  
NOTE Confidence: 0.784055472142857

00:55:15.420 --> 00:55:16.885 Now the important thing for  
NOTE Confidence: 0.784055472142857

00:55:16.885 --> 00:55:18.057 this is the selection.  
NOTE Confidence: 0.784055472142857

00:55:18.060 --> 00:55:19.938 So the baseline stage is important.  
NOTE Confidence: 0.784055472142857

00:55:19.940 --> 00:55:22.823 So when we stage them, if I'm MRI,  
NOTE Confidence: 0.784055472142857

00:55:22.823 --> 00:55:24.086 the circumferential resection  
NOTE Confidence: 0.784055472142857

00:55:24.086 --> 00:55:26.880 margin is less than one millimeter.  
NOTE Confidence: 0.784055472142857

00:55:26.880 --> 00:55:28.710 Likely this patient is not a  
NOTE Confidence: 0.784055472142857

00:55:28.710 --> 00:55:30.260 good candidate for watching late.  
NOTE Confidence: 0.784055472142857

00:55:30.260 --> 00:55:32.096 If they have extensive nodal disease,  
NOTE Confidence: 0.784055472142857

00:55:32.100 --> 00:55:34.724 or if they have lateral pelvic nodal disease,  
NOTE Confidence: 0.784055472142857

00:55:34.730 --> 00:55:36.356 they're not good candidates for watching,  
NOTE Confidence: 0.784055472142857

00:55:36.360 --> 00:55:37.810 right?  
NOTE Confidence: 0.784055472142857

00:55:37.810 --> 00:55:39.532 The other important thing is that  
NOTE Confidence: 0.784055472142857

00:55:39.532 --> 00:55:41.113 the tumor should be profitable  
NOTE Confidence: 0.784055472142857

00:55:41.113 --> 00:55:42.629 and digital rectal exam.  
NOTE Confidence: 0.784055472142857

00:55:42.630 --> 00:55:45.710 So if you can't palpate the tumor,

NOTE Confidence: 0.784055472142857  
00:55:45.710 --> 00:55:47.796 they may not be a good candidate  
NOTE Confidence: 0.784055472142857  
00:55:47.796 --> 00:55:48.926 for watching right now.  
NOTE Confidence: 0.784055472142857  
00:55:48.926 --> 00:55:50.578 We also look at some endoscopic features  
NOTE Confidence: 0.784055472142857  
00:55:50.578 --> 00:55:52.189 to see if they're good candidates  
NOTE Confidence: 0.784055472142857  
00:55:52.189 --> 00:55:53.821 for this watch and read approach.  
NOTE Confidence: 0.784055472142857  
00:55:53.830 --> 00:55:55.594 We've got to make sure the tumors are small,  
NOTE Confidence: 0.784055472142857  
00:55:55.600 --> 00:55:56.452 they're not circumferential,  
NOTE Confidence: 0.784055472142857  
00:55:56.452 --> 00:55:58.440 and if after you do the totally  
NOTE Confidence: 0.784055472142857  
00:55:58.491 --> 00:55:59.913 adjuvant therapy you got to make  
NOTE Confidence: 0.784055472142857  
00:55:59.913 --> 00:56:01.430 sure there are no strictures,  
NOTE Confidence: 0.784055472142857  
00:56:01.430 --> 00:56:03.130 because if there are strictures,  
NOTE Confidence: 0.784055472142857  
00:56:03.130 --> 00:56:06.739 it's kind of hard to assess that they're in.  
NOTE Confidence: 0.784055472142857  
00:56:06.740 --> 00:56:10.135 Now, once we have these selection criteria,  
NOTE Confidence: 0.784055472142857  
00:56:10.140 --> 00:56:13.220 if all three selection criteria are met,  
NOTE Confidence: 0.784055472142857  
00:56:13.220 --> 00:56:16.202 there's 98% accuracy in what we are  
NOTE Confidence: 0.784055472142857

00:56:16.202 --> 00:56:18.299 doing with watching now digital rectal  
NOTE Confidence: 0.784055472142857

00:56:18.299 --> 00:56:19.937 exam again is the most accurate.  
NOTE Confidence: 0.784055472142857

00:56:19.940 --> 00:56:21.868 We need to get a baseline before treatment,  
NOTE Confidence: 0.784055472142857

00:56:21.870 --> 00:56:22.995 usually after treatment.  
NOTE Confidence: 0.784055472142857

00:56:22.995 --> 00:56:25.620 If you see a smooth and regular  
NOTE Confidence: 0.784055472142857

00:56:25.688 --> 00:56:27.628 mucosal surface on palpation.  
NOTE Confidence: 0.784055472142857

00:56:27.630 --> 00:56:29.718 Patients usually don't have are are  
NOTE Confidence: 0.784055472142857

00:56:29.718 --> 00:56:31.989 good candidates for this watch and with  
NOTE Confidence: 0.784055472142857

00:56:31.990 --> 00:56:33.658 and endoscopy like I mentioned before,  
NOTE Confidence: 0.784055472142857

00:56:33.660 --> 00:56:35.082 if there's whitening of the mucosa  
NOTE Confidence: 0.784055472142857

00:56:35.082 --> 00:56:36.830 and you just see calendar pacius,  
NOTE Confidence: 0.784055472142857

00:56:36.830 --> 00:56:37.721 they're also good.  
NOTE Confidence: 0.784055472142857

00:56:37.721 --> 00:56:39.503 But if you see any ulceration,  
NOTE Confidence: 0.784055472142857

00:56:39.510 --> 00:56:41.238 stenosis or masked,  
NOTE Confidence: 0.784055472142857

00:56:41.238 --> 00:56:45.270 they don't have a clinical complete response.  
NOTE Confidence: 0.784055472142857

00:56:45.270 --> 00:56:46.940 Biopsies should not be done

NOTE Confidence: 0.784055472142857  
00:56:46.940 --> 00:56:48.610 because sometimes you only biopsy  
NOTE Confidence: 0.784055472142857  
00:56:48.673 --> 00:56:49.990 the superficial surface.  
NOTE Confidence: 0.784055472142857  
00:56:49.990 --> 00:56:51.560 Cancer may be found deeper  
NOTE Confidence: 0.784055472142857  
00:56:51.560 --> 00:56:52.816 inside and sometimes this.  
NOTE Confidence: 0.784055472142857  
00:56:52.820 --> 00:56:54.585 This may yield false assurance  
NOTE Confidence: 0.784055472142857  
00:56:54.585 --> 00:56:56.350 location and if they if,  
NOTE Confidence: 0.784055472142857  
00:56:56.350 --> 00:56:57.966 let's say the MRI shows a deeper lesion,  
NOTE Confidence: 0.784055472142857  
00:56:57.970 --> 00:56:59.670 they may not pursue surgery  
NOTE Confidence: 0.784055472142857  
00:56:59.670 --> 00:57:01.370 because they feel that well.  
NOTE Confidence: 0.784055472142857  
00:57:01.370 --> 00:57:03.470 They found the cancer on colonoscopy.  
NOTE Confidence: 0.784055472142857  
00:57:03.470 --> 00:57:04.894 Now I see nothing.  
NOTE Confidence: 0.784055472142857  
00:57:04.894 --> 00:57:07.800 Why why should I go for surgery?  
NOTE Confidence: 0.784055472142857  
00:57:07.800 --> 00:57:09.068 Lastly, MRI is important.  
NOTE Confidence: 0.784055472142857  
00:57:09.068 --> 00:57:10.970 This is where the radiologist comes  
NOTE Confidence: 0.784055472142857  
00:57:11.028 --> 00:57:13.065 in for us on Tito restored images  
NOTE Confidence: 0.784055472142857

00:57:13.065 --> 00:57:14.360 and diffusion weighted images.  
NOTE Confidence: 0.784055472142857

00:57:14.360 --> 00:57:18.440 We can see if there's any residual to.  
NOTE Confidence: 0.784055472142857

00:57:18.440 --> 00:57:18.837 Now,  
NOTE Confidence: 0.784055472142857

00:57:18.837 --> 00:57:21.219 what kind of surveillance do we  
NOTE Confidence: 0.784055472142857

00:57:21.219 --> 00:57:23.609 follow after you know the patient  
NOTE Confidence: 0.784055472142857

00:57:23.609 --> 00:57:25.853 gets done with Mike and Kim,  
NOTE Confidence: 0.784055472142857

00:57:25.860 --> 00:57:28.320 they come to us in about 6 to 8 weeks later.  
NOTE Confidence: 0.784055472142857

00:57:28.320 --> 00:57:30.318 We start with digital rectal exam  
NOTE Confidence: 0.784055472142857

00:57:30.318 --> 00:57:32.640 and they lost and we get an MRI.  
NOTE Confidence: 0.784055472142857

00:57:32.640 --> 00:57:34.490 If there's an incomplete response.  
NOTE Confidence: 0.784055472142857

00:57:34.490 --> 00:57:35.636 Meaning we see an All Star  
NOTE Confidence: 0.784055472142857

00:57:35.636 --> 00:57:36.640 team or anything like that.  
NOTE Confidence: 0.82393956

00:57:36.640 --> 00:57:38.590 They go for a radical surgery.  
NOTE Confidence: 0.82393956

00:57:38.590 --> 00:57:39.400 They found the other hand.  
NOTE Confidence: 0.82393956

00:57:39.400 --> 00:57:41.866 If there's a near complete response.  
NOTE Confidence: 0.82393956

00:57:41.870 --> 00:57:43.907 It may be reasonable in some patients

NOTE Confidence: 0.82393956

00:57:43.907 --> 00:57:46.126 to wait another 6 to 8 weeks and

NOTE Confidence: 0.82393956

00:57:46.126 --> 00:57:47.416 repeat the digital rectal exam

NOTE Confidence: 0.82393956

00:57:47.473 --> 00:57:49.391 and endoscopy to see if they go

NOTE Confidence: 0.82393956

00:57:49.391 --> 00:57:52.690 from near complete response to.

NOTE Confidence: 0.82393956

00:57:52.690 --> 00:57:54.657 To complete clinical response now most of

NOTE Confidence: 0.82393956

00:57:54.657 --> 00:57:56.557 these patients if you wait long enough,

NOTE Confidence: 0.82393956

00:57:56.560 --> 00:57:58.855 sometimes you have to wait 28 to 34 weeks.

NOTE Confidence: 0.82393956

00:57:58.860 --> 00:58:01.860 They do become complete clinical

NOTE Confidence: 0.82393956

00:58:01.860 --> 00:58:03.426 responders now, if, on the other hand,

NOTE Confidence: 0.82393956

00:58:03.430 --> 00:58:05.936 there's no continued response or any growth,

NOTE Confidence: 0.82393956

00:58:05.940 --> 00:58:07.230 you've got to look at protecting.

NOTE Confidence: 0.76430194

00:58:09.500 --> 00:58:11.820 Now for clinical complete responders,

NOTE Confidence: 0.76430194

00:58:11.820 --> 00:58:14.576 we'll be doing is we do

NOTE Confidence: 0.76430194

00:58:14.576 --> 00:58:15.440 additional rectal exam,

NOTE Confidence: 0.76430194

00:58:15.440 --> 00:58:17.856 anoscopy and MRI every three to four months.

NOTE Confidence: 0.76430194

00:58:17.860 --> 00:58:20.695 I usually tend to go every three  
NOTE Confidence: 0.76430194

00:58:20.695 --> 00:58:22.260 months for at least two years.  
NOTE Confidence: 0.76430194

00:58:22.260 --> 00:58:24.780 After two years we decreased the frequency.  
NOTE Confidence: 0.76430194

00:58:24.780 --> 00:58:26.532 We do it every six months  
NOTE Confidence: 0.76430194

00:58:26.532 --> 00:58:27.700 for about three years.  
NOTE Confidence: 0.76430194

00:58:27.700 --> 00:58:29.356 And then this is the key part is  
NOTE Confidence: 0.76430194

00:58:29.356 --> 00:58:31.256 that you got to go for this yearly  
NOTE Confidence: 0.76430194

00:58:31.256 --> 00:58:33.019 because we don't have long term data.  
NOTE Confidence: 0.76430194

00:58:33.020 --> 00:58:34.665 So if you're going to go with  
NOTE Confidence: 0.76430194

00:58:34.665 --> 00:58:36.189 the watch and wait approach,  
NOTE Confidence: 0.76430194

00:58:36.190 --> 00:58:37.989 we gotta make sure our application is  
NOTE Confidence: 0.76430194

00:58:37.989 --> 00:58:39.805 committed to doing this every three months  
NOTE Confidence: 0.76430194

00:58:39.805 --> 00:58:41.620 for two years every six months after.  
NOTE Confidence: 0.73430629

00:58:43.900 --> 00:58:45.478 Now, what what is local report?  
NOTE Confidence: 0.73430629

00:58:45.480 --> 00:58:48.280 The risk of local regrowth is about 10%.  
NOTE Confidence: 0.73430629

00:58:48.280 --> 00:58:50.650 If you have, you know clinical

NOTE Confidence: 0.73430629

00:58:50.650 --> 00:58:52.660 complete response for two years

NOTE Confidence: 0.73430629

00:58:52.660 --> 00:58:55.614 and the actual risk is only 25% of

NOTE Confidence: 0.73430629

00:58:55.614 --> 00:58:57.553 two years and then most of these

NOTE Confidence: 0.73430629

00:58:57.553 --> 00:58:59.340 patients have aluminum components,

NOTE Confidence: 0.73430629

00:58:59.340 --> 00:59:01.433 so we can pick them up on

NOTE Confidence: 0.73430629

00:59:01.433 --> 00:59:03.179 endoscopy or digital rectal exam.

NOTE Confidence: 0.73430629

00:59:03.180 --> 00:59:05.718 Rarely do they have mesorectal or

NOTE Confidence: 0.73430629

00:59:05.718 --> 00:59:07.410 lateral pelvic sidewall disease.

NOTE Confidence: 0.73430629

00:59:07.410 --> 00:59:09.690 And the risk factors are basically

NOTE Confidence: 0.73430629

00:59:09.690 --> 00:59:11.577 increasing 2 stage for every

NOTE Confidence: 0.73430629

00:59:11.577 --> 00:59:13.945 increase in T stage from T1 to T3.

NOTE Confidence: 0.73430629

00:59:13.950 --> 00:59:16.995 There's about a 10% increase increase in

NOTE Confidence: 0.73430629

00:59:16.995 --> 00:59:20.110 risk of local regrowth after two years.

NOTE Confidence: 0.73430629

00:59:20.110 --> 00:59:21.910 If they're complete clinical responder,

NOTE Confidence: 0.73430629

00:59:21.910 --> 00:59:22.902 there is no risk,

NOTE Confidence: 0.73430629

00:59:22.902 --> 00:59:24.390 and there you know just because  
NOTE Confidence: 0.73430629

00:59:24.450 --> 00:59:25.720 they have a higher stage.  
NOTE Confidence: 0.79404524

00:59:27.820 --> 00:59:29.164 Even if there's regrowth,  
NOTE Confidence: 0.79404524

00:59:29.164 --> 00:59:31.228 90% of these patients are  
NOTE Confidence: 0.79404524

00:59:31.228 --> 00:59:32.956 amenable to R0 sections.  
NOTE Confidence: 0.79404524

00:59:32.960 --> 00:59:36.754 I usually say if there are clinically  
NOTE Confidence: 0.79404524

00:59:36.754 --> 00:59:38.420 2M0 because they've had told me,  
NOTE Confidence: 0.79404524

00:59:38.420 --> 00:59:40.541 as you been therapy, some patients may  
NOTE Confidence: 0.79404524

00:59:40.541 --> 00:59:42.540 be candidates for transient addition.  
NOTE Confidence: 0.79404524

00:59:42.540 --> 00:59:44.418 Some patients do go for proctectomy.  
NOTE Confidence: 0.79404524

00:59:44.420 --> 00:59:45.516 Anything higher than that.  
NOTE Confidence: 0.79404524

00:59:45.516 --> 00:59:46.886 They should go for proctectomy.  
NOTE Confidence: 0.905311271428571

00:59:49.460 --> 00:59:50.980 There is increased risk for  
NOTE Confidence: 0.905311271428571

00:59:50.980 --> 00:59:51.930 metastatic disease, unfortunately,  
NOTE Confidence: 0.905311271428571

00:59:51.930 --> 00:59:53.290 if there's local regrowth,  
NOTE Confidence: 0.905311271428571

00:59:53.290 --> 00:59:54.739 we don't know if it's because of

NOTE Confidence: 0.905311271428571  
00:59:54.739 --> 00:59:56.324 tumor biology, but I think there's  
NOTE Confidence: 0.905311271428571  
00:59:56.324 --> 00:59:58.470 going to be more work on that.  
NOTE Confidence: 0.905311271428571  
00:59:58.470 --> 00:59:59.770 In terms of functional outcome,  
NOTE Confidence: 0.905311271428571  
00:59:59.770 --> 01:00:01.429 I mean with watch and wait all  
NOTE Confidence: 0.905311271428571  
01:00:01.429 --> 01:00:02.466 they're getting this chemoradiation  
NOTE Confidence: 0.905311271428571  
01:00:02.466 --> 01:00:04.658 so they're quality of life is so much  
NOTE Confidence: 0.905311271428571  
01:00:04.658 --> 01:00:06.286 better than what surgery they have.  
NOTE Confidence: 0.905311271428571  
01:00:06.290 --> 01:00:08.106 Fewer defecation, urinary problems.  
NOTE Confidence: 0.905311271428571  
01:00:08.106 --> 01:00:10.830 They also have better sexual function.  
NOTE Confidence: 0.905311271428571  
01:00:10.830 --> 01:00:13.150 They have superior functional outcomes.  
NOTE Confidence: 0.905311271428571  
01:00:13.150 --> 01:00:14.538 Then even those patients  
NOTE Confidence: 0.905311271428571  
01:00:14.538 --> 01:00:15.926 have had local excision,  
NOTE Confidence: 0.905311271428571  
01:00:15.930 --> 01:00:18.405 but about a third of the patients do have  
NOTE Confidence: 0.905311271428571  
01:00:18.405 --> 01:00:21.041 this large syndrome which is low interior  
NOTE Confidence: 0.905311271428571  
01:00:21.041 --> 01:00:23.530 section syndrome where they have frequency,  
NOTE Confidence: 0.905311271428571

01:00:23.530 --> 01:00:24.600 urgency, clustering,  
NOTE Confidence: 0.905311271428571

01:00:24.600 --> 01:00:25.670 occasional incontinence.  
NOTE Confidence: 0.905311271428571

01:00:25.670 --> 01:00:30.199 But it is manageable and it doesn't prove it.  
NOTE Confidence: 0.905311271428571

01:00:30.200 --> 01:00:31.240 Now, what about the future?  
NOTE Confidence: 0.905311271428571

01:00:31.240 --> 01:00:33.648 Because now we don't know which patients  
NOTE Confidence: 0.905311271428571

01:00:33.648 --> 01:00:36.379 respond well and become complete responders.  
NOTE Confidence: 0.905311271428571

01:00:36.380 --> 01:00:38.294 So some people are working on  
NOTE Confidence: 0.905311271428571

01:00:38.294 --> 01:00:40.028 actually cultures of the rectal  
NOTE Confidence: 0.905311271428571

01:00:40.028 --> 01:00:41.998 cancer derived from the patients,  
NOTE Confidence: 0.905311271428571

01:00:42.000 --> 01:00:44.520 and we treat them.  
NOTE Confidence: 0.905311271428571

01:00:44.520 --> 01:00:46.214 And then we also create the patient  
NOTE Confidence: 0.905311271428571

01:00:46.214 --> 01:00:48.208 and we see if these organized  
NOTE Confidence: 0.905311271428571

01:00:48.208 --> 01:00:49.420 cultures actually complete.  
NOTE Confidence: 0.905311271428571

01:00:49.420 --> 01:00:50.728 They respond and they may give  
NOTE Confidence: 0.905311271428571

01:00:50.728 --> 01:00:52.262 us an indication on what the  
NOTE Confidence: 0.905311271428571

01:00:52.262 --> 01:00:53.180 patient completed respond.

NOTE Confidence: 0.832203604166667  
01:00:55.400 --> 01:00:57.262 Now let's talk about some of the  
NOTE Confidence: 0.832203604166667  
01:00:57.262 --> 01:00:58.699 surgical options that for surgery,  
NOTE Confidence: 0.832203604166667  
01:00:58.700 --> 01:01:00.345 it depends on where the tumor is.  
NOTE Confidence: 0.832203604166667  
01:01:00.350 --> 01:01:03.134 So the anatomy of the \*\*\*\*\* is important  
NOTE Confidence: 0.832203604166667  
01:01:03.134 --> 01:01:05.904 to any tumors lower down chances of  
NOTE Confidence: 0.832203604166667  
01:01:05.904 --> 01:01:08.016 having an ostomy are much higher.  
NOTE Confidence: 0.832203604166667  
01:01:08.020 --> 01:01:10.960 So let's talk 1st about local excision.  
NOTE Confidence: 0.832203604166667  
01:01:10.960 --> 01:01:12.965 So local excision was described  
NOTE Confidence: 0.832203604166667  
01:01:12.965 --> 01:01:15.560 in the 1800s for benign tumors.  
NOTE Confidence: 0.832203604166667  
01:01:15.560 --> 01:01:17.360 It was kind of refined and  
NOTE Confidence: 0.832203604166667  
01:01:17.360 --> 01:01:18.560 perfected by Alan Park.  
NOTE Confidence: 0.832203604166667  
01:01:18.560 --> 01:01:21.386 He designed a lot of instruments.  
NOTE Confidence: 0.832203604166667  
01:01:21.390 --> 01:01:23.280 The first real rectal cancer  
NOTE Confidence: 0.832203604166667  
01:01:23.280 --> 01:01:25.170 transanal excision was done in  
NOTE Confidence: 0.832203604166667  
01:01:25.170 --> 01:01:27.990 1977 at Saint Marks Hospital.  
NOTE Confidence: 0.832203604166667

01:01:27.990 --> 01:01:28.821 In the 1980s,  
NOTE Confidence: 0.832203604166667

01:01:28.821 --> 01:01:31.150 this guy was way ahead of his time.  
NOTE Confidence: 0.832203604166667

01:01:31.150 --> 01:01:33.684 Gerhard because he designed with the setup,  
NOTE Confidence: 0.832203604166667

01:01:33.690 --> 01:01:36.342 which is essentially a laparoscopic setup  
NOTE Confidence: 0.832203604166667

01:01:36.342 --> 01:01:38.110 that's transiently scopic microsurgery,  
NOTE Confidence: 0.832203604166667

01:01:38.110 --> 01:01:39.909 where you can go through the \*\*\*\*.  
NOTE Confidence: 0.832203604166667

01:01:39.910 --> 01:01:42.610 It was the first natural orifice  
NOTE Confidence: 0.832203604166667

01:01:42.610 --> 01:01:44.050 device where you can go through  
NOTE Confidence: 0.832203604166667

01:01:44.050 --> 01:01:45.703 the \*\*\*\* and resect tumors,  
NOTE Confidence: 0.832203604166667

01:01:45.703 --> 01:01:48.049 even up to 20 centimeters higher.  
NOTE Confidence: 0.832203604166667

01:01:48.050 --> 01:01:49.592 The problem with that is it's  
NOTE Confidence: 0.832203604166667

01:01:49.592 --> 01:01:51.192 a very complex system and the  
NOTE Confidence: 0.832203604166667

01:01:51.192 --> 01:01:52.487 training curve is very high,  
NOTE Confidence: 0.832203604166667

01:01:52.490 --> 01:01:54.570 so it didn't get adopted.  
NOTE Confidence: 0.832203604166667

01:01:54.570 --> 01:01:56.829 We do have it we we do do these  
NOTE Confidence: 0.832203604166667

01:01:56.829 --> 01:01:57.850 stem surgeries.

NOTE Confidence: 0.832203604166667  
01:01:57.850 --> 01:02:00.098 Then they came up with a more easier  
NOTE Confidence: 0.832203604166667  
01:02:00.098 --> 01:02:01.782 platform which is using the laptop  
NOTE Confidence: 0.832203604166667  
01:02:01.782 --> 01:02:03.705 with the equipment in the 20 Tens  
NOTE Confidence: 0.832203604166667  
01:02:03.705 --> 01:02:05.668 this is much cheaper whereas the  
NOTE Confidence: 0.832203604166667  
01:02:05.668 --> 01:02:07.813 temps equipment is probably close  
NOTE Confidence: 0.832203604166667  
01:02:07.813 --> 01:02:10.560 to I think 1/4 of \$1,000,000.  
NOTE Confidence: 0.832203604166667  
01:02:10.560 --> 01:02:13.220 So this one is much more accessible  
NOTE Confidence: 0.832203604166667  
01:02:13.220 --> 01:02:15.520 to all the institutions.  
NOTE Confidence: 0.832203604166667  
01:02:15.520 --> 01:02:18.976 Now we do local excision for T1 lesions.  
NOTE Confidence: 0.832203604166667  
01:02:18.980 --> 01:02:20.965 They usually have to be  
NOTE Confidence: 0.832203604166667  
01:02:20.965 --> 01:02:21.759 histologically favorable.  
NOTE Confidence: 0.832203604166667  
01:02:21.760 --> 01:02:23.440 Usually we make sure they have  
NOTE Confidence: 0.832203604166667  
01:02:23.440 --> 01:02:24.280 no lymphovascular invasion,  
NOTE Confidence: 0.832203604166667  
01:02:24.280 --> 01:02:26.380 poor differentiation, or tumor planning.  
NOTE Confidence: 0.832203604166667  
01:02:26.380 --> 01:02:26.631 Unfortunately,  
NOTE Confidence: 0.832203604166667

01:02:26.631 --> 01:02:28.639 we don't know a lot of this information  
NOTE Confidence: 0.832203604166667

01:02:28.639 --> 01:02:29.978 until after we did the surgery,  
NOTE Confidence: 0.832203604166667

01:02:29.980 --> 01:02:32.970 so if a patient undergoes.  
NOTE Confidence: 0.832203604166667

01:02:32.970 --> 01:02:34.785 Transitional expression for T1 lesion  
NOTE Confidence: 0.832203604166667

01:02:34.785 --> 01:02:38.050 and if they have any of these bad features,  
NOTE Confidence: 0.832203604166667

01:02:38.050 --> 01:02:39.865 I mean literally region for  
NOTE Confidence: 0.832203604166667

01:02:39.865 --> 01:02:41.317 differentiation or general budding.  
NOTE Confidence: 0.832203604166667

01:02:41.320 --> 01:02:44.220 They may have to consider.  
NOTE Confidence: 0.832203604166667

01:02:44.220 --> 01:02:47.889 Radiation or protecting?  
NOTE Confidence: 0.832203604166667

01:02:47.890 --> 01:02:50.308 Now, how about for two lesions?  
NOTE Confidence: 0.832203604166667

01:02:50.310 --> 01:02:51.840 The problem with the two lesions  
NOTE Confidence: 0.832203604166667

01:02:51.840 --> 01:02:53.130 is that local recurrence rate.  
NOTE Confidence: 0.832203604166667

01:02:53.130 --> 01:02:55.125 If you do a local excision is  
NOTE Confidence: 0.832203604166667

01:02:55.125 --> 01:02:56.330 about 13 to 30%.  
NOTE Confidence: 0.832203604166667

01:02:56.330 --> 01:02:58.244 Now the main reason is because  
NOTE Confidence: 0.832203604166667

01:02:58.244 --> 01:02:59.744 they have nodal involvement in

NOTE Confidence: 0.832203604166667  
01:02:59.744 --> 01:03:01.929 30 to 40% of the patients.  
NOTE Confidence: 0.832203604166667  
01:03:01.930 --> 01:03:02.403 Now,  
NOTE Confidence: 0.832203604166667  
01:03:02.403 --> 01:03:04.768 some patients are still candidates  
NOTE Confidence: 0.832203604166667  
01:03:04.770 --> 01:03:07.338 for local excision of two lesions.  
NOTE Confidence: 0.832203604166667  
01:03:07.340 --> 01:03:08.470 These are high risk patients.  
NOTE Confidence: 0.832203604166667  
01:03:08.470 --> 01:03:10.514 And then there are some patients who  
NOTE Confidence: 0.832203604166667  
01:03:10.514 --> 01:03:12.370 absolutely refuse to have a philosophy.  
NOTE Confidence: 0.832203604166667  
01:03:12.370 --> 01:03:14.400 And sometimes you don't have a choice.  
NOTE Confidence: 0.832203604166667  
01:03:14.400 --> 01:03:16.899 You do something that's better than nothing.  
NOTE Confidence: 0.806972727368421  
01:03:18.970 --> 01:03:21.322 And there's data to show that chemo  
NOTE Confidence: 0.806972727368421  
01:03:21.322 --> 01:03:23.150 radiation may decrease local recurrence  
NOTE Confidence: 0.806972727368421  
01:03:23.150 --> 01:03:25.810 and also create this occult nodal disease.  
NOTE Confidence: 0.806972727368421  
01:03:25.810 --> 01:03:27.805 And when we when we give chemoradiation  
NOTE Confidence: 0.806972727368421  
01:03:27.805 --> 01:03:29.625 we see that the local recurrence  
NOTE Confidence: 0.806972727368421  
01:03:29.625 --> 01:03:32.090 is 15% as opposed to about 7%  
NOTE Confidence: 0.806972727368421

01:03:32.090 --> 01:03:34.478 when we do a formal practice.  
NOTE Confidence: 0.806972727368421

01:03:34.480 --> 01:03:36.796 So it's lower than the 30%.  
NOTE Confidence: 0.813246416923077

01:03:38.940 --> 01:03:41.058 Now, how about doing more radiation  
NOTE Confidence: 0.813246416923077

01:03:41.058 --> 01:03:43.929 therapy 1st and then doing local exception?  
NOTE Confidence: 0.813246416923077

01:03:43.930 --> 01:03:45.862 Now, there are several trials which looked  
NOTE Confidence: 0.813246416923077

01:03:45.862 --> 01:03:48.150 at it and they showed that it's it's  
NOTE Confidence: 0.813246416923077

01:03:48.150 --> 01:03:50.038 got to be equivalent local recurrence  
NOTE Confidence: 0.813246416923077

01:03:50.038 --> 01:03:52.428 and overall survival to proctectomy.  
NOTE Confidence: 0.813246416923077

01:03:52.430 --> 01:03:55.598 So in select patients it may be useful.  
NOTE Confidence: 0.813246416923077

01:03:55.600 --> 01:03:57.882 The downside is that if you do  
NOTE Confidence: 0.813246416923077

01:03:57.882 --> 01:03:59.831 chemo radiation or totally adjuvant  
NOTE Confidence: 0.813246416923077

01:03:59.831 --> 01:04:02.219 therapy up front, is there really  
NOTE Confidence: 0.813246416923077

01:04:02.219 --> 01:04:03.934 role even for two lesions?  
NOTE Confidence: 0.813246416923077

01:04:03.940 --> 01:04:06.028 The surgery even necessary,  
NOTE Confidence: 0.813246416923077

01:04:06.028 --> 01:04:08.116 especially if there are  
NOTE Confidence: 0.813246416923077

01:04:08.116 --> 01:04:09.920 complete clinical response.

NOTE Confidence: 0.750070463571428  
01:04:11.930 --> 01:04:15.262 Now the problem with local excision after  
NOTE Confidence: 0.750070463571428  
01:04:15.262 --> 01:04:18.750 radiation is the post hoc healing issues.  
NOTE Confidence: 0.750070463571428  
01:04:18.750 --> 01:04:19.510 Now let's talk about.  
NOTE Confidence: 0.750070463571428  
01:04:19.510 --> 01:04:20.650 Let's go on the task list.  
NOTE Confidence: 0.750070463571428  
01:04:20.650 --> 01:04:22.030 Anytime we do local excision,  
NOTE Confidence: 0.750070463571428  
01:04:22.030 --> 01:04:24.046 this is the biggest thing we worry about.  
NOTE Confidence: 0.750070463571428  
01:04:24.050 --> 01:04:25.694 It is directly correlated to the  
NOTE Confidence: 0.750070463571428  
01:04:25.694 --> 01:04:27.369 depth of invasion of the tumor.  
NOTE Confidence: 0.750070463571428  
01:04:27.370 --> 01:04:29.743 So for a tumor that's confined to  
NOTE Confidence: 0.750070463571428  
01:04:29.743 --> 01:04:32.591 the top 1/3 of the submucosa of the  
NOTE Confidence: 0.750070463571428  
01:04:32.591 --> 01:04:35.008 wall of the \*\*\*\*\* there's only 3%  
NOTE Confidence: 0.750070463571428  
01:04:35.008 --> 01:04:36.688 risk of lower normal metastases.  
NOTE Confidence: 0.750070463571428  
01:04:36.690 --> 01:04:38.430 Now, these are T1 lesions.  
NOTE Confidence: 0.750070463571428  
01:04:38.430 --> 01:04:40.642 Now the same T1 lesions if they  
NOTE Confidence: 0.750070463571428  
01:04:40.642 --> 01:04:43.128 if they invade the lower third or  
NOTE Confidence: 0.750070463571428

01:04:43.128 --> 01:04:45.318 the deeper third of the submucosa,  
NOTE Confidence: 0.750070463571428

01:04:45.320 --> 01:04:48.272 there's a 23% risk of blood from the taxes.  
NOTE Confidence: 0.750070463571428

01:04:48.280 --> 01:04:50.405 These numbers are almost close  
NOTE Confidence: 0.750070463571428

01:04:50.405 --> 01:04:52.105 to the two regions.  
NOTE Confidence: 0.750070463571428

01:04:52.110 --> 01:04:54.354 Also, if they have information or  
NOTE Confidence: 0.750070463571428

01:04:54.354 --> 01:04:55.850 invasion and four differentiation,  
NOTE Confidence: 0.750070463571428

01:04:55.850 --> 01:04:59.236 there's higher chance there were some  
NOTE Confidence: 0.750070463571428

01:04:59.236 --> 01:05:01.408 nice studies done which showed that  
NOTE Confidence: 0.750070463571428

01:05:01.408 --> 01:05:02.868 Lymphovascular invasion is associated  
NOTE Confidence: 0.750070463571428

01:05:02.868 --> 01:05:05.290 with lymph node metastasis and also with  
NOTE Confidence: 0.750070463571428

01:05:05.345 --> 01:05:07.418 the 2.5 X increase in systemic recounts.  
NOTE Confidence: 0.750070463571428

01:05:07.420 --> 01:05:09.604 This is a nice study done by chain  
NOTE Confidence: 0.750070463571428

01:05:09.610 --> 01:05:12.053 in 2012 where they looked at T1  
NOTE Confidence: 0.750070463571428

01:05:12.053 --> 01:05:14.249 lesions and T2 lesions years,  
NOTE Confidence: 0.750070463571428

01:05:14.250 --> 01:05:16.806 vascular and region and four differentiation.  
NOTE Confidence: 0.750070463571428

01:05:16.810 --> 01:05:18.714 And if you look at it, if they have both,

NOTE Confidence: 0.750070463571428  
01:05:18.714 --> 01:05:20.304 it's almost 100% chance of winning  
NOTE Confidence: 0.750070463571428  
01:05:20.304 --> 01:05:21.328 on the test disease.  
NOTE Confidence: 0.750070463571428  
01:05:21.330 --> 01:05:23.020 Same for T1 and T2.  
NOTE Confidence: 0.750070463571428  
01:05:23.020 --> 01:05:24.604 Obviously everything is worse  
NOTE Confidence: 0.750070463571428  
01:05:24.604 --> 01:05:26.188 for the two regions.  
NOTE Confidence: 0.750070463571428  
01:05:26.190 --> 01:05:27.718 Also 44 differentiation again,  
NOTE Confidence: 0.750070463571428  
01:05:27.718 --> 01:05:30.010 another study showed a 5X fold  
NOTE Confidence: 0.750070463571428  
01:05:30.081 --> 01:05:31.773 increased chance of lymphoma  
NOTE Confidence: 0.750070463571428  
01:05:31.773 --> 01:05:34.070 capacities and that's why you know  
NOTE Confidence: 0.750070463571428  
01:05:34.070 --> 01:05:36.470 if we have these risk factors we try  
NOTE Confidence: 0.750070463571428  
01:05:36.537 --> 01:05:38.704 not to do a local excision tumor.  
NOTE Confidence: 0.750070463571428  
01:05:38.704 --> 01:05:41.801 Budding was initially described by in 1993.  
NOTE Confidence: 0.750070463571428  
01:05:41.801 --> 01:05:45.238 The Japanese had a lot of literature  
NOTE Confidence: 0.750070463571428  
01:05:45.238 --> 01:05:46.930 on using it as a predictor,  
NOTE Confidence: 0.750070463571428  
01:05:46.930 --> 01:05:51.118 and prognostic indicator of low forecasts.  
NOTE Confidence: 0.750070463571428

01:05:51.120 --> 01:05:54.691 So we tried to do a local excision  
NOTE Confidence: 0.750070463571428

01:05:54.691 --> 01:05:56.473 for like the low risk patients.  
NOTE Confidence: 0.750070463571428

01:05:56.480 --> 01:05:58.748 Now how do we do it?  
NOTE Confidence: 0.750070463571428

01:05:58.750 --> 01:06:01.501 Usually you know we have these operating  
NOTE Confidence: 0.750070463571428

01:06:01.501 --> 01:06:04.209 scopes and we identify the lesion,  
NOTE Confidence: 0.750070463571428

01:06:04.210 --> 01:06:05.690 get about 1 centimeter margin,  
NOTE Confidence: 0.750070463571428

01:06:05.690 --> 01:06:09.042 excise the lesion down to the parackal fact  
NOTE Confidence: 0.750070463571428

01:06:09.042 --> 01:06:12.019 some people close it up and some don't.  
NOTE Confidence: 0.750070463571428

01:06:12.020 --> 01:06:13.800 And here's how attempts approach  
NOTE Confidence: 0.750070463571428

01:06:13.800 --> 01:06:15.580 with the transcend the transient  
NOTE Confidence: 0.750070463571428

01:06:15.643 --> 01:06:17.179 landscape with microsurgery.  
NOTE Confidence: 0.750070463571428

01:06:17.180 --> 01:06:19.436 You're you have the laparoscopic instruments,  
NOTE Confidence: 0.750070463571428

01:06:19.440 --> 01:06:21.843 we actually use it and we can actually go  
NOTE Confidence: 0.750070463571428

01:06:21.843 --> 01:06:24.319 even up to the sigmoid to recycle lesions.  
NOTE Confidence: 0.750070463571428

01:06:24.320 --> 01:06:24.780 This is,  
NOTE Confidence: 0.750070463571428

01:06:24.780 --> 01:06:27.149 this is how it looks for anyone who is in GI.

NOTE Confidence: 0.750070463571428  
01:06:27.150 --> 01:06:30.566 It looks like an advanced ESD procedure.  
NOTE Confidence: 0.750070463571428  
01:06:30.570 --> 01:06:30.841 Yeah,  
NOTE Confidence: 0.750070463571428  
01:06:30.841 --> 01:06:32.196 and there's a huge training  
NOTE Confidence: 0.750070463571428  
01:06:32.196 --> 01:06:33.520 curve associated with it now,  
NOTE Confidence: 0.750070463571428  
01:06:33.520 --> 01:06:35.336 even though it's the smallest surgery we do,  
NOTE Confidence: 0.750070463571428  
01:06:35.340 --> 01:06:38.040 there are complications associated with it.  
NOTE Confidence: 0.750070463571428  
01:06:38.040 --> 01:06:41.316 The biggest one is urinary retention.  
NOTE Confidence: 0.750070463571428  
01:06:41.320 --> 01:06:42.732 We also see bleeding.  
NOTE Confidence: 0.750070463571428  
01:06:42.732 --> 01:06:45.634 We receive this in about 5% of the  
NOTE Confidence: 0.750070463571428  
01:06:45.634 --> 01:06:47.594 patients or patients were anticoagulated  
NOTE Confidence: 0.750070463571428  
01:06:47.600 --> 01:06:48.790 and then the big thing is you  
NOTE Confidence: 0.750070463571428  
01:06:48.790 --> 01:06:50.160 know you can see public accesses.  
NOTE Confidence: 0.750070463571428  
01:06:50.160 --> 01:06:52.856 These are a bigger issue for higher lesions,  
NOTE Confidence: 0.750070463571428  
01:06:52.860 --> 01:06:55.500 where interpersonal entry is gained,  
NOTE Confidence: 0.750070463571428  
01:06:55.500 --> 01:06:58.615 but these can be managed by easily.  
NOTE Confidence: 0.750070463571428

01:06:58.620 --> 01:07:00.680 Now what about the outcomes?  
NOTE Confidence: 0.750070463571428

01:07:00.680 --> 01:07:02.878 One of the worst things about local  
NOTE Confidence: 0.750070463571428

01:07:02.878 --> 01:07:04.829 excision is that we cannot harvest  
NOTE Confidence: 0.750070463571428

01:07:04.829 --> 01:07:08.488 or stage the mesorectal lymph nodes.  
NOTE Confidence: 0.750070463571428

01:07:08.490 --> 01:07:10.262 For key one cancers,  
NOTE Confidence: 0.750070463571428

01:07:10.262 --> 01:07:11.148 again there's  
NOTE Confidence: 0.5960074286

01:07:11.150 --> 01:07:13.490 65% risk of nodal metastasis,  
NOTE Confidence: 0.5960074286

01:07:13.490 --> 01:07:14.938 and if you don't do a good surgery  
NOTE Confidence: 0.5960074286

01:07:14.938 --> 01:07:16.009 and there's positive margins,  
NOTE Confidence: 0.5960074286

01:07:16.010 --> 01:07:17.825 it increases the local recurrence  
NOTE Confidence: 0.5960074286

01:07:17.825 --> 01:07:20.096 and decreases the five year old  
NOTE Confidence: 0.5960074286

01:07:20.096 --> 01:07:22.021 overall survival for two regions.  
NOTE Confidence: 0.5960074286

01:07:22.021 --> 01:07:24.283 Again, local recurrence you know it's  
NOTE Confidence: 0.5960074286

01:07:24.283 --> 01:07:27.005 not the local recurrence is pretty bad,  
NOTE Confidence: 0.5960074286

01:07:27.010 --> 01:07:30.104 and the overall survival is slightly lower,  
NOTE Confidence: 0.5960074286

01:07:30.110 --> 01:07:32.546 but some patients are good candidates

NOTE Confidence: 0.5960074286  
01:07:32.546 --> 01:07:34.701 for this. You're more outcomes.  
NOTE Confidence: 0.5960074286  
01:07:34.701 --> 01:07:36.936 Risk of lymph nodes increase  
NOTE Confidence: 0.5960074286  
01:07:36.936 --> 01:07:39.479 as the destaging increases.  
NOTE Confidence: 0.5960074286  
01:07:39.480 --> 01:07:41.608 Also, local recurrence increases.  
NOTE Confidence: 0.5960074286  
01:07:41.608 --> 01:07:44.800 There are several studies confirming these.  
NOTE Confidence: 0.5960074286  
01:07:44.800 --> 01:07:47.620 So in summary, we do transitional  
NOTE Confidence: 0.5960074286  
01:07:47.620 --> 01:07:50.180 transitional excisions for T1 regions.  
NOTE Confidence: 0.5960074286  
01:07:50.180 --> 01:07:51.500 If it's a high risk one,  
NOTE Confidence: 0.5960074286  
01:07:51.500 --> 01:07:53.220 you can add in chemoradiation  
NOTE Confidence: 0.5960074286  
01:07:53.220 --> 01:07:54.940 or do more radical surgery.  
NOTE Confidence: 0.5960074286  
01:07:54.940 --> 01:07:57.640 For T2 would prefer radical surgery,  
NOTE Confidence: 0.5960074286  
01:07:57.640 --> 01:08:00.356 but in some select patients maybe transient  
NOTE Confidence: 0.5960074286  
01:08:00.356 --> 01:08:03.028 decision keep more regulation T3 no local.  
NOTE Confidence: 0.5960074286  
01:08:03.030 --> 01:08:05.514 Decision to go straight forward main  
NOTE Confidence: 0.5960074286  
01:08:05.514 --> 01:08:07.010 surgery which we will talk about.  
NOTE Confidence: 0.5960074286

01:08:07.010 --> 01:08:08.924 So the radical surgery for rectal  
NOTE Confidence: 0.5960074286

01:08:08.924 --> 01:08:10.710 cancer is a proctectomy thought.  
NOTE Confidence: 0.5960074286

01:08:10.710 --> 01:08:13.750 It was initially described in 1907 by Miles.  
NOTE Confidence: 0.5960074286

01:08:13.750 --> 01:08:16.030 There was the abdominal pain reduction.  
NOTE Confidence: 0.5960074286

01:08:16.030 --> 01:08:17.890 We further defined what good  
NOTE Confidence: 0.5960074286

01:08:17.890 --> 01:08:22.118 surgery means in 1982 by the field.  
NOTE Confidence: 0.5960074286

01:08:22.120 --> 01:08:23.880 And why do we have to do timing?  
NOTE Confidence: 0.5960074286

01:08:23.880 --> 01:08:25.698 The reason is if you do,  
NOTE Confidence: 0.5960074286

01:08:25.700 --> 01:08:27.604 if you if you operate in the  
NOTE Confidence: 0.5960074286

01:08:27.604 --> 01:08:28.420 non teaming planes,  
NOTE Confidence: 0.5960074286

01:08:28.420 --> 01:08:31.164 local recurrence can be as high as  
NOTE Confidence: 0.5960074286

01:08:31.164 --> 01:08:33.880 30% and if if if you look at our  
NOTE Confidence: 0.5960074286

01:08:33.880 --> 01:08:34.900 circumferential resection margin,  
NOTE Confidence: 0.5960074286

01:08:34.900 --> 01:08:36.457 if you go right next to the tumor and  
NOTE Confidence: 0.5960074286

01:08:36.457 --> 01:08:38.237 get a margin of less than one millimeter,  
NOTE Confidence: 0.5960074286

01:08:38.240 --> 01:08:40.640 that's a 50% local recurrence rate.

NOTE Confidence: 0.5960074286

01:08:40.640 --> 01:08:42.710 We don't have to do much better if you

NOTE Confidence: 0.5960074286

01:08:42.710 --> 01:08:45.080 just go 1 millimeter to the other side.

NOTE Confidence: 0.5960074286

01:08:45.080 --> 01:08:47.250 Local recurrence drops to 17% by

NOTE Confidence: 0.5960074286

01:08:47.250 --> 01:08:50.810 staying in TME drops to less than 10%.

NOTE Confidence: 0.5960074286

01:08:50.810 --> 01:08:52.840 There's embryological portions for the

NOTE Confidence: 0.5960074286

01:08:52.840 --> 01:08:55.778 Cammy plan that will not go over this.

NOTE Confidence: 0.5960074286

01:08:55.780 --> 01:08:57.320 There are different surgical approaches.

NOTE Confidence: 0.5960074286

01:08:57.320 --> 01:08:58.700 Here's the we used to do.

NOTE Confidence: 0.5960074286

01:08:58.700 --> 01:09:00.260 Additional open incision and then we

NOTE Confidence: 0.5960074286

01:09:00.260 --> 01:09:02.399 started going with a smaller lifestyle that,

NOTE Confidence: 0.5960074286

01:09:02.400 --> 01:09:04.059 or minimally invasive

NOTE Confidence: 0.5960074286

01:09:04.059 --> 01:09:05.718 approaches with laparoscopy.

NOTE Confidence: 0.5960074286

01:09:05.720 --> 01:09:06.230 The insufflate,

NOTE Confidence: 0.5960074286

01:09:06.230 --> 01:09:06.740 the belly,

NOTE Confidence: 0.5960074286

01:09:06.740 --> 01:09:08.651 use a camera and use a little

NOTE Confidence: 0.5960074286

01:09:08.651 --> 01:09:10.296 instruments and do the surgery.  
NOTE Confidence: 0.5960074286

01:09:10.300 --> 01:09:12.118 Now we're using the robotic thing.  
NOTE Confidence: 0.5960074286

01:09:12.120 --> 01:09:13.626 It's ergonomically better.  
NOTE Confidence: 0.5960074286

01:09:13.626 --> 01:09:16.158 The surgeon sits here and the  
NOTE Confidence: 0.5960074286

01:09:16.158 --> 01:09:17.971 robot sits next to the patient and  
NOTE Confidence: 0.5960074286

01:09:17.971 --> 01:09:19.958 we control it to do the surgery.  
NOTE Confidence: 0.5960074286

01:09:19.960 --> 01:09:21.204 The visualization is phenomenal.  
NOTE Confidence: 0.5960074286

01:09:21.204 --> 01:09:22.759 This is how it looks.  
NOTE Confidence: 0.5960074286

01:09:22.760 --> 01:09:25.210 We identify the wrestlers we can see.  
NOTE Confidence: 0.5960074286

01:09:25.210 --> 01:09:25.652 You know,  
NOTE Confidence: 0.5960074286

01:09:25.652 --> 01:09:27.420 pretty much everything we need to see and.  
NOTE Confidence: 0.59944738

01:09:29.670 --> 01:09:30.630 And still again,  
NOTE Confidence: 0.59944738

01:09:30.630 --> 01:09:32.230 we're out for radical resection.  
NOTE Confidence: 0.59944738

01:09:32.230 --> 01:09:34.708 DME is the standard local recurrence,  
NOTE Confidence: 0.59944738

01:09:34.710 --> 01:09:36.336 can rock to less than 7%.  
NOTE Confidence: 0.59944738

01:09:36.340 --> 01:09:38.342 The problem with rectal cancer is the

NOTE Confidence: 0.59944738

01:09:38.342 --> 01:09:40.310 lower the fuel mirrors to the \*\*\*\*

NOTE Confidence: 0.59944738

01:09:40.310 --> 01:09:41.787 the higher the chance of the leak.

NOTE Confidence: 0.59944738

01:09:41.790 --> 01:09:43.370 So the lower the tumor,

NOTE Confidence: 0.59944738

01:09:43.370 --> 01:09:45.002 the higher the chance of them

NOTE Confidence: 0.59944738

01:09:45.002 --> 01:09:46.090 having the temporary announcement.

NOTE Confidence: 0.59944738

01:09:46.090 --> 01:09:47.616 And when we stay in these planes,

NOTE Confidence: 0.59944738

01:09:47.620 --> 01:09:49.876 there's nerves which wrap around us

NOTE Confidence: 0.59944738

01:09:49.876 --> 01:09:51.813 which can cause erectile dysfunction

NOTE Confidence: 0.59944738

01:09:51.813 --> 01:09:54.347 in attempt to 30% of the patients.

NOTE Confidence: 0.59944738

01:09:54.347 --> 01:09:56.860 Some report even as high as 80%.

NOTE Confidence: 0.59944738

01:09:56.860 --> 01:09:58.080 And for the distal margin,

NOTE Confidence: 0.59944738

01:09:58.080 --> 01:09:59.600 we need about 2 centimeters,

NOTE Confidence: 0.59944738

01:09:59.600 --> 01:10:01.014 and if there's any question of that,

NOTE Confidence: 0.59944738

01:10:01.020 --> 01:10:03.044 we can even do a frozen section even

NOTE Confidence: 0.59944738

01:10:03.044 --> 01:10:04.303 1 centimeter after chemoradiation

NOTE Confidence: 0.59944738

01:10:04.303 --> 01:10:06.058 can be acceptable in certain  
NOTE Confidence: 0.59944738

01:10:06.058 --> 01:10:07.989 patients where the tumors are very.  
NOTE Confidence: 0.561672465957143

01:10:10.060 --> 01:10:13.035 No, the most patients want the LAR,  
NOTE Confidence: 0.561672465957143

01:10:13.040 --> 01:10:15.259 which is a low interior section syndrome  
NOTE Confidence: 0.561672465957143

01:10:15.260 --> 01:10:17.297 and this is a sphincter preserving surgery.  
NOTE Confidence: 0.561672465957143

01:10:17.300 --> 01:10:19.388 There's different kinds if it's a high tumor,  
NOTE Confidence: 0.561672465957143

01:10:19.390 --> 01:10:20.850 you can do a standard  
NOTE Confidence: 0.561672465957143

01:10:20.850 --> 01:10:22.310 LAR for super low tumors.  
NOTE Confidence: 0.561672465957143

01:10:22.310 --> 01:10:25.376 We do low, ultra low or colloidal.  
NOTE Confidence: 0.561672465957143

01:10:25.380 --> 01:10:27.912 Usually it's acceptable even if the  
NOTE Confidence: 0.561672465957143

01:10:27.912 --> 01:10:29.600 internal sphincter is involved.  
NOTE Confidence: 0.561672465957143

01:10:29.600 --> 01:10:31.598 We got to make sure that this will feel  
NOTE Confidence: 0.561672465957143

01:10:31.598 --> 01:10:33.496 more margin is about 1 centimeter for us  
NOTE Confidence: 0.561672465957143

01:10:33.496 --> 01:10:35.760 to be able to renounce the most divinest.  
NOTE Confidence: 0.561672465957143

01:10:35.760 --> 01:10:37.853 Most of them do get some kind  
NOTE Confidence: 0.561672465957143

01:10:37.853 --> 01:10:39.280 of an artificial \*\*\*\*\*.

NOTE Confidence: 0.561672465957143  
01:10:39.280 --> 01:10:40.617 Now when we look at their anatomy,  
NOTE Confidence: 0.561672465957143  
01:10:40.620 --> 01:10:41.760 patients always ask us well,  
NOTE Confidence: 0.561672465957143  
01:10:41.760 --> 01:10:42.957 why are you picking out my sigmoid?  
NOTE Confidence: 0.561672465957143  
01:10:42.960 --> 01:10:44.744 Also, when the cancer is here and the  
NOTE Confidence: 0.561672465957143  
01:10:44.744 --> 01:10:46.908 reason is it has to do with the blood supply.  
NOTE Confidence: 0.561672465957143  
01:10:46.910 --> 01:10:50.820 So we got the sigmoid colon, the \*\*\*\*\*.  
NOTE Confidence: 0.561672465957143  
01:10:50.820 --> 01:10:52.878 And this is an open surgery.  
NOTE Confidence: 0.561672465957143  
01:10:52.880 --> 01:10:55.316 Here we are dividing the semi  
NOTE Confidence: 0.561672465957143  
01:10:55.316 --> 01:10:56.940 colon descending colon junction.  
NOTE Confidence: 0.561672465957143  
01:10:56.940 --> 01:10:58.280 Staying in the theme plane,  
NOTE Confidence: 0.561672465957143  
01:10:58.280 --> 01:10:59.456 identifying the nerves,  
NOTE Confidence: 0.561672465957143  
01:10:59.456 --> 01:11:01.416 dissecting not off the sacrum,  
NOTE Confidence: 0.561672465957143  
01:11:01.420 --> 01:11:03.200 taking it off the anterior.  
NOTE Confidence: 0.561672465957143  
01:11:03.200 --> 01:11:04.190 In this case,  
NOTE Confidence: 0.561672465957143  
01:11:04.190 --> 01:11:06.796 it's the uterus dividing it off the  
NOTE Confidence: 0.561672465957143

01:11:06.796 --> 01:11:08.520 uterus and then once we do this,  
NOTE Confidence: 0.561672465957143

01:11:08.520 --> 01:11:09.444 we use it.  
NOTE Confidence: 0.561672465957143

01:11:09.444 --> 01:11:10.984 The retractors and open fashion  
NOTE Confidence: 0.561672465957143

01:11:10.984 --> 01:11:13.520 go all the way low and then we try  
NOTE Confidence: 0.561672465957143

01:11:13.520 --> 01:11:15.652 to transact it as low as possible  
NOTE Confidence: 0.561672465957143

01:11:15.652 --> 01:11:17.317 and then insert statement through  
NOTE Confidence: 0.561672465957143

01:11:17.317 --> 01:11:19.081 the \*\*\*\* to perform it.  
NOTE Confidence: 0.561672465957143

01:11:19.081 --> 01:11:20.589 And that's the most.  
NOTE Confidence: 0.561672465957143

01:11:20.590 --> 01:11:22.048 Laparoscopically we use  
NOTE Confidence: 0.561672465957143

01:11:22.048 --> 01:11:23.506 these little instruments,  
NOTE Confidence: 0.561672465957143

01:11:23.510 --> 01:11:25.028 so here we are identifying the  
NOTE Confidence: 0.561672465957143

01:11:25.028 --> 01:11:26.640 IMA that we need to divide.  
NOTE Confidence: 0.561672465957143

01:11:26.640 --> 01:11:28.525 We isolated and divided divide  
NOTE Confidence: 0.561672465957143

01:11:28.525 --> 01:11:31.435 the IV and then free up the left  
NOTE Confidence: 0.561672465957143

01:11:31.435 --> 01:11:33.654 colon and then we take down all  
NOTE Confidence: 0.561672465957143

01:11:33.737 --> 01:11:36.245 the attachments of the left colon,

NOTE Confidence: 0.561672465957143  
01:11:36.250 --> 01:11:38.644 dissect the \*\*\*\*\* off the presacral plane.  
NOTE Confidence: 0.561672465957143  
01:11:38.650 --> 01:11:40.100 Here's the hypogastric plexus that  
NOTE Confidence: 0.561672465957143  
01:11:40.100 --> 01:11:42.222 we identify and keep safe so that  
NOTE Confidence: 0.561672465957143  
01:11:42.222 --> 01:11:43.450 there's no sexual dysfunction.  
NOTE Confidence: 0.84071980125  
01:11:45.640 --> 01:11:47.784 There's a video of what this is doing.  
NOTE Confidence: 0.84071980125  
01:11:47.790 --> 01:11:49.020 The surgery robotically?  
NOTE Confidence: 0.84071980125  
01:11:49.020 --> 01:11:51.778 So we're taking down the plane in  
NOTE Confidence: 0.84071980125  
01:11:51.778 --> 01:11:53.566 a quick second. You'll even see  
NOTE Confidence: 0.84071980125  
01:11:53.566 --> 01:11:54.919 that you're highlighting up here.  
NOTE Confidence: 0.84071980125  
01:11:54.920 --> 01:11:56.942 And green, we have a specialized  
NOTE Confidence: 0.84071980125  
01:11:56.942 --> 01:11:59.489 dye that we use when we use the.  
NOTE Confidence: 0.84071980125  
01:11:59.490 --> 01:12:00.458 They're right there when  
NOTE Confidence: 0.84071980125  
01:12:00.458 --> 01:12:01.668 we use the robotic surgery,  
NOTE Confidence: 0.84071980125  
01:12:01.670 --> 01:12:02.800 we're opening up the planes.  
NOTE Confidence: 0.84071980125  
01:12:02.800 --> 01:12:04.190 This is the Mesorectal plane,  
NOTE Confidence: 0.84071980125

01:12:04.190 --> 01:12:06.326 which is the loose areolar tissue.  
NOTE Confidence: 0.84071980125

01:12:06.330 --> 01:12:07.095 It's almost bloodless.  
NOTE Confidence: 0.84071980125

01:12:07.095 --> 01:12:08.370 If you look at it.  
NOTE Confidence: 0.84071980125

01:12:08.370 --> 01:12:09.610 We're just, you know,  
NOTE Confidence: 0.84071980125

01:12:09.610 --> 01:12:11.470 going through it for quite fast.  
NOTE Confidence: 0.84071980125

01:12:11.470 --> 01:12:12.154 Like here,  
NOTE Confidence: 0.84071980125

01:12:12.154 --> 01:12:14.206 we are identifying the hypogastric nerves,  
NOTE Confidence: 0.84071980125

01:12:14.210 --> 01:12:16.676 preserving them so there's no sexual  
NOTE Confidence: 0.84071980125

01:12:16.676 --> 01:12:18.250 dysfunction, and we keep doing this,  
NOTE Confidence: 0.84071980125

01:12:18.250 --> 01:12:20.880 so I'll skip over this.  
NOTE Confidence: 0.84071980125

01:12:20.880 --> 01:12:22.320 You're real isolated on both  
NOTE Confidence: 0.84071980125

01:12:22.320 --> 01:12:24.100 the right and the left side.  
NOTE Confidence: 0.84071980125

01:12:24.100 --> 01:12:25.172 Here is the \*\*\*\*\*.  
NOTE Confidence: 0.84071980125

01:12:25.172 --> 01:12:26.512 The tumor is somewhere here,  
NOTE Confidence: 0.84071980125

01:12:26.520 --> 01:12:29.985 so now we're doing the disco mobilization.  
NOTE Confidence: 0.84071980125

01:12:29.990 --> 01:12:32.076 So you know we're not counting down

NOTE Confidence: 0.84071980125

01:12:32.076 --> 01:12:33.870 we're getting the entirety of me.

NOTE Confidence: 0.84071980125

01:12:33.870 --> 01:12:35.268 We have identified the tumor here,

NOTE Confidence: 0.84071980125

01:12:35.270 --> 01:12:37.190 so now we're marking it off

NOTE Confidence: 0.84071980125

01:12:37.190 --> 01:12:38.120 and we're thinning it out.

NOTE Confidence: 0.84071980125

01:12:38.120 --> 01:12:40.160 The margin needs to be about 2 centimeters.

NOTE Confidence: 0.84980091

01:12:42.280 --> 01:12:44.644 Once we do that here, we're basing it off

NOTE Confidence: 0.84980091

01:12:44.644 --> 01:12:46.300 the prostate and the Seminole vesicles.

NOTE Confidence: 0.875411612

01:12:48.970 --> 01:12:49.770 Once we have done that,

NOTE Confidence: 0.875411612

01:12:49.770 --> 01:12:51.024 we use the stapler to divide

NOTE Confidence: 0.875411612

01:12:51.024 --> 01:12:52.310 it and extract the specimen.

NOTE Confidence: 0.875411612

01:12:52.310 --> 01:12:54.781 So in this case you know the

NOTE Confidence: 0.875411612

01:12:54.781 --> 01:12:56.570 staple really comes in and you

NOTE Confidence: 0.875411612

01:12:56.570 --> 01:12:58.070 have cleaned out the rectal wall.

NOTE Confidence: 0.875411612

01:12:58.070 --> 01:13:00.138 You can see that.

NOTE Confidence: 0.875411612

01:13:00.140 --> 01:13:02.010 The muscles of the rectal

NOTE Confidence: 0.875411612

01:13:02.010 --> 01:13:03.506 wall were dividing it.  
NOTE Confidence: 0.875411612

01:13:03.510 --> 01:13:04.494 Once it's divided,  
NOTE Confidence: 0.875411612

01:13:04.494 --> 01:13:06.134 the specimen is extracted and  
NOTE Confidence: 0.875411612

01:13:06.134 --> 01:13:07.968 then we do this anastomosis  
NOTE Confidence: 0.875411612

01:13:07.970 --> 01:13:09.220 and the fresh colon from  
NOTE Confidence: 0.875411612

01:13:09.220 --> 01:13:10.470 higher comes down and it's.  
NOTE Confidence: 0.9164710875

01:13:13.090 --> 01:13:16.274 This is how it looks in real life.  
NOTE Confidence: 0.9164710875

01:13:16.280 --> 01:13:18.100 There's a spike coming in from below,  
NOTE Confidence: 0.9164710875

01:13:18.100 --> 01:13:19.148 with Spike with stapler.  
NOTE Confidence: 0.9164710875

01:13:19.148 --> 01:13:20.196 The spike is standard  
NOTE Confidence: 0.9164710875

01:13:20.196 --> 01:13:21.490 deployed on our staple line.  
NOTE Confidence: 0.9164710875

01:13:21.490 --> 01:13:22.818 There's the proximal annual  
NOTE Confidence: 0.9164710875

01:13:22.818 --> 01:13:24.810 that gets hooked on to it.  
NOTE Confidence: 0.9164710875

01:13:24.810 --> 01:13:27.034 And then Atmos as a fraction in two  
NOTE Confidence: 0.9164710875

01:13:27.034 --> 01:13:29.009 layers with two rows of statements.  
NOTE Confidence: 0.9164710875

01:13:29.010 --> 01:13:31.110 And sometimes we actually oversaw it.

NOTE Confidence: 0.9164710875

01:13:31.110 --> 01:13:33.028 Here on hold we're holding up the

NOTE Confidence: 0.9164710875

01:13:33.028 --> 01:13:34.618 the the prostate and the what.

NOTE Confidence: 0.628857922

01:13:37.770 --> 01:13:38.990 This is just rearranging it.

NOTE Confidence: 0.628857922

01:13:38.990 --> 01:13:40.278 Moving the fat out of the way so

NOTE Confidence: 0.628857922

01:13:40.278 --> 01:13:41.570 none of these get incorporated.

NOTE Confidence: 0.5868949385

01:13:46.060 --> 01:13:47.560 So there's different colonic

NOTE Confidence: 0.5868949385

01:13:47.560 --> 01:13:49.060 resources in this procedure.

NOTE Confidence: 0.5868949385

01:13:49.060 --> 01:13:50.040 I showed you this one,

NOTE Confidence: 0.5868949385

01:13:50.040 --> 01:13:51.570 which is called the Baker anastomosis.

NOTE Confidence: 0.5868949385

01:13:51.570 --> 01:13:53.722 There's a jpegs or coal plasty I'll talk

NOTE Confidence: 0.5868949385

01:13:53.722 --> 01:13:55.819 about why we use the most of the time.

NOTE Confidence: 0.5868949385

01:13:55.820 --> 01:13:56.825 We do diversifications,

NOTE Confidence: 0.5868949385

01:13:56.825 --> 01:13:58.165 especially after team radiation,

NOTE Confidence: 0.5868949385

01:13:58.170 --> 01:13:59.358 or if it's a little tumor.

NOTE Confidence: 0.5868949385

01:13:59.360 --> 01:14:00.844 So this is a temporary diverting look.

NOTE Confidence: 0.5868949385

01:14:00.850 --> 01:14:01.460 Really awesome,  
NOTE Confidence: 0.5868949385

01:14:01.460 --> 01:14:03.595 now the next most can be done,  
NOTE Confidence: 0.5868949385

01:14:03.600 --> 01:14:04.572 stapled, or handsome.  
NOTE Confidence: 0.5868949385

01:14:04.572 --> 01:14:07.196 We prefer the staple because it's easier and  
NOTE Confidence: 0.5868949385

01:14:07.196 --> 01:14:09.254 quicker and faster and safer for patient,  
NOTE Confidence: 0.5868949385

01:14:09.260 --> 01:14:10.348 but in some situations  
NOTE Confidence: 0.5868949385

01:14:10.348 --> 01:14:12.230 we have to do a hands on,  
NOTE Confidence: 0.5868949385

01:14:12.230 --> 01:14:13.870 and that's the message because  
NOTE Confidence: 0.5868949385

01:14:13.870 --> 01:14:15.182 the State Fair misfired.  
NOTE Confidence: 0.5868949385

01:14:15.190 --> 01:14:16.275 This is a staple anastomosis  
NOTE Confidence: 0.5868949385

01:14:16.275 --> 01:14:17.143 that I showed you.  
NOTE Confidence: 0.5868949385

01:14:17.150 --> 01:14:18.488 The answer is much more difficult.  
NOTE Confidence: 0.5868949385

01:14:18.490 --> 01:14:20.994 We get it, it's it's usually done open.  
NOTE Confidence: 0.5868949385

01:14:21.000 --> 01:14:23.060 Uh, takes a longer time,  
NOTE Confidence: 0.5868949385

01:14:23.060 --> 01:14:25.360 so we usually staple misfires.  
NOTE Confidence: 0.5868949385

01:14:25.360 --> 01:14:27.436 Here's the tumor that's been excised.

NOTE Confidence: 0.5868949385

01:14:27.440 --> 01:14:29.920 We take off the cuff of rectal mucosa,

NOTE Confidence: 0.5868949385

01:14:29.920 --> 01:14:30.958 pull the corn,

NOTE Confidence: 0.5868949385

01:14:30.958 --> 01:14:33.720 and do a hands on anastomosis through the.

NOTE Confidence: 0.5868949385

01:14:33.720 --> 01:14:35.464 This adds about an hour to the case.

NOTE Confidence: 0.5868949385

01:14:35.470 --> 01:14:37.734 You know this is usually not done nowadays.

NOTE Confidence: 0.5868949385

01:14:37.740 --> 01:14:39.492 Now these are for tumors which

NOTE Confidence: 0.5868949385

01:14:39.492 --> 01:14:40.660 involve the internal sphincter.

NOTE Confidence: 0.5868949385

01:14:40.660 --> 01:14:42.651 What we do is we go all the way down below

NOTE Confidence: 0.5868949385

01:14:42.651 --> 01:14:44.415 the headline right by the inner drum,

NOTE Confidence: 0.5868949385

01:14:44.420 --> 01:14:44.990 divide it,

NOTE Confidence: 0.5868949385

01:14:44.990 --> 01:14:46.700 pull the colon from above and

NOTE Confidence: 0.5868949385

01:14:46.700 --> 01:14:48.516 literally look it up for the intercom.

NOTE Confidence: 0.5868949385

01:14:48.520 --> 01:14:49.880 The functional results from

NOTE Confidence: 0.5868949385

01:14:49.880 --> 01:14:51.240 this are actually comparable.

NOTE Confidence: 0.5868949385

01:14:51.240 --> 01:14:54.957 PR and patients have good functional outcome,

NOTE Confidence: 0.5868949385

01:14:54.960 --> 01:14:57.120 meaning they don't have incontinence,  
NOTE Confidence: 0.5868949385

01:14:57.120 --> 01:15:00.207 even though they only have their sponsor.  
NOTE Confidence: 0.5868949385

01:15:00.210 --> 01:15:02.148 This is more of historic interest,  
NOTE Confidence: 0.5868949385

01:15:02.150 --> 01:15:03.515 but we have about two or three  
NOTE Confidence: 0.5868949385

01:15:03.515 --> 01:15:04.900 patients where we have done this  
NOTE Confidence: 0.5868949385

01:15:04.900 --> 01:15:06.150 because they were hostile abdomen.  
NOTE Confidence: 0.5868949385

01:15:06.150 --> 01:15:07.998 So we do a abdominal incision and  
NOTE Confidence: 0.5868949385

01:15:07.998 --> 01:15:10.084 then we go through the back and  
NOTE Confidence: 0.5868949385

01:15:10.084 --> 01:15:12.002 we open up the toxics and actually  
NOTE Confidence: 0.5868949385

01:15:12.002 --> 01:15:13.179 under direct visualization to  
NOTE Confidence: 0.5868949385

01:15:13.179 --> 01:15:15.174 then that's the most as if they  
NOTE Confidence: 0.5868949385

01:15:15.174 --> 01:15:16.968 have a hostile anterior abdomen.  
NOTE Confidence: 0.5868949385

01:15:16.970 --> 01:15:18.800 This is recently of interest.  
NOTE Confidence: 0.5868949385

01:15:18.800 --> 01:15:20.740 This is called a transitional  
NOTE Confidence: 0.5868949385

01:15:20.740 --> 01:15:23.260 PME where the distal portion of  
NOTE Confidence: 0.5868949385

01:15:23.260 --> 01:15:25.435 the TME is very difficult.

NOTE Confidence: 0.5868949385

01:15:25.440 --> 01:15:27.224 So what they decided to do was why

NOTE Confidence: 0.5868949385

01:15:27.224 --> 01:15:29.306 not go through the \*\*\*\* divide the

NOTE Confidence: 0.5868949385

01:15:29.306 --> 01:15:32.130 \*\*\*\*\* go up a little higher and then

NOTE Confidence: 0.5868949385

01:15:32.212 --> 01:15:35.524 pull the colon down and do that that's mosis.

NOTE Confidence: 0.5868949385

01:15:35.530 --> 01:15:36.892 It helps with the distal mobilization

NOTE Confidence: 0.5868949385

01:15:36.892 --> 01:15:38.726 of the last three to six centimeters of

NOTE Confidence: 0.5868949385

01:15:38.726 --> 01:15:40.542 the \*\*\*\*\* but there's some complications.

NOTE Confidence: 0.5868949385

01:15:40.542 --> 01:15:42.257 Is that because you're kind

NOTE Confidence: 0.5868949385

01:15:42.257 --> 01:15:43.598 of doing it blindly?

NOTE Confidence: 0.5868949385

01:15:43.600 --> 01:15:44.960 People are transacted the Aretha,

NOTE Confidence: 0.5868949385

01:15:44.960 --> 01:15:46.664 or cause rectovaginal fistula,

NOTE Confidence: 0.5868949385

01:15:46.664 --> 01:15:48.794 and these are bad problems.

NOTE Confidence: 0.5868949385

01:15:48.800 --> 01:15:49.898 With good luck,

NOTE Confidence: 0.5868949385

01:15:49.898 --> 01:15:50.630 periscopic skills,

NOTE Confidence: 0.5868949385

01:15:50.630 --> 01:15:52.429 you're able to do the distal 3

NOTE Confidence: 0.5868949385

01:15:52.429 --> 01:15:53.200 to 6 centimeters,  
NOTE Confidence: 0.5868949385

01:15:53.200 --> 01:15:55.456 so you're not huge advocates for the kids.  
NOTE Confidence: 0.5868949385

01:15:55.460 --> 01:15:56.196 I mean,  
NOTE Confidence: 0.5868949385

01:15:56.196 --> 01:15:58.404 you're still in terms of functional  
NOTE Confidence: 0.5868949385

01:15:58.404 --> 01:15:59.990 outcome after anastomosis.  
NOTE Confidence: 0.5868949385

01:15:59.990 --> 01:16:00.875 It's conflicted because  
NOTE Confidence: 0.5868949385

01:16:00.875 --> 01:16:02.055 you're missing your \*\*\*\*\*.  
NOTE Confidence: 0.5868949385

01:16:02.060 --> 01:16:03.878 Some people do report good outcomes,  
NOTE Confidence: 0.5868949385

01:16:03.880 --> 01:16:05.325 but there's higher rates of  
NOTE Confidence: 0.5868949385

01:16:05.325 --> 01:16:07.060 incontinence and worse quality of life,  
NOTE Confidence: 0.5868949385

01:16:07.060 --> 01:16:09.379 especially in women.  
NOTE Confidence: 0.5868949385

01:16:09.380 --> 01:16:10.910 And patients experience this low  
NOTE Confidence: 0.5868949385

01:16:10.910 --> 01:16:12.440 interoception syndrome where they have  
NOTE Confidence: 0.5868949385

01:16:12.491 --> 01:16:14.087 origins through frequency clustering,  
NOTE Confidence: 0.5868949385

01:16:14.090 --> 01:16:14.431 incontinence.  
NOTE Confidence: 0.5868949385

01:16:14.431 --> 01:16:17.159 Most of these symptoms do improve after year,

NOTE Confidence: 0.5868949385

01:16:17.160 --> 01:16:19.596 and quantifiers of wars instead of just

NOTE Confidence: 0.5868949385

01:16:19.596 --> 01:16:21.911 hooking up the colon straight into

NOTE Confidence: 0.5868949385

01:16:21.911 --> 01:16:24.317 the venous actually helps with this.

NOTE Confidence: 0.631037624545454

01:16:24.320 --> 01:16:26.480 These are the different options the

NOTE Confidence: 0.631037624545454

01:16:26.480 --> 01:16:28.364 cloning jpod was described in 1986.

NOTE Confidence: 0.631037624545454

01:16:28.364 --> 01:16:29.948 Technically, a little bit more difficult.

NOTE Confidence: 0.631037624545454

01:16:29.950 --> 01:16:33.019 Very hard to do it in patients who are

NOTE Confidence: 0.631037624545454

01:16:33.019 --> 01:16:34.428 obese patients are diverticulosis,

NOTE Confidence: 0.631037624545454

01:16:34.428 --> 01:16:36.920 where bulky colon have a shortened mesentery.

NOTE Confidence: 0.631037624545454

01:16:36.920 --> 01:16:38.019 This is how it kind of looks.

NOTE Confidence: 0.631037624545454

01:16:38.020 --> 01:16:39.680 It looks like there's capacity.

NOTE Confidence: 0.631037624545454

01:16:39.680 --> 01:16:41.717 It's supposed to have a small colon.

NOTE Confidence: 0.631037624545454

01:16:41.720 --> 01:16:43.346 Call pasty was defined as an

NOTE Confidence: 0.631037624545454

01:16:43.346 --> 01:16:44.746 easier approach where you know

NOTE Confidence: 0.631037624545454

01:16:44.746 --> 01:16:46.294 you can you get this reservoir,

NOTE Confidence: 0.631037624545454

01:16:46.300 --> 01:16:48.120 but the problem is now you run  
NOTE Confidence: 0.631037624545454

01:16:48.120 --> 01:16:49.675 an atmosphere and another staple  
NOTE Confidence: 0.631037624545454

01:16:49.675 --> 01:16:51.460 one which can potentially leak.  
NOTE Confidence: 0.631037624545454

01:16:51.460 --> 01:16:53.770 So we try not to do do this because there's  
NOTE Confidence: 0.631037624545454

01:16:53.832 --> 01:16:55.880 a higher leak rate of the colopy side.  
NOTE Confidence: 0.631037624545454

01:16:55.880 --> 01:16:57.320 Then there's a much easier technique  
NOTE Confidence: 0.631037624545454

01:16:57.320 --> 01:16:59.514 where we do and decide we do about 3  
NOTE Confidence: 0.631037624545454

01:16:59.514 --> 01:17:01.020 centimeters of this and looked it up,  
NOTE Confidence: 0.631037624545454

01:17:01.020 --> 01:17:02.420 and it has similar outcome  
NOTE Confidence: 0.631037624545454

01:17:02.420 --> 01:17:03.260 through cloning Jacobs.  
NOTE Confidence: 0.631037624545454

01:17:03.260 --> 01:17:06.236 So we have now all transitioned to this.  
NOTE Confidence: 0.631037624545454

01:17:06.240 --> 01:17:06.987 So in summary,  
NOTE Confidence: 0.631037624545454

01:17:06.987 --> 01:17:09.130 you can do it stapled or hand so on.  
NOTE Confidence: 0.631037624545454

01:17:09.130 --> 01:17:10.414 We do use reservoirs.  
NOTE Confidence: 0.631037624545454

01:17:10.414 --> 01:17:12.760 Patients do get a perspective of stoma,  
NOTE Confidence: 0.631037624545454

01:17:12.760 --> 01:17:14.140 but one big downside is this.

NOTE Confidence: 0.631037624545454  
01:17:14.140 --> 01:17:16.108 Lower anterior resection syndrome.  
NOTE Confidence: 0.631037624545454  
01:17:16.108 --> 01:17:19.608 Now this is the procedure described by miles,  
NOTE Confidence: 0.631037624545454  
01:17:19.608 --> 01:17:21.576 which is abdominal pain and other  
NOTE Confidence: 0.631037624545454  
01:17:21.576 --> 01:17:23.576 section the absolute indication for it  
NOTE Confidence: 0.631037624545454  
01:17:23.576 --> 01:17:25.484 is if any external sphincters involved  
NOTE Confidence: 0.631037624545454  
01:17:25.484 --> 01:17:27.632 or if the patient is incontinent even  
NOTE Confidence: 0.631037624545454  
01:17:27.632 --> 01:17:30.239 for the diagnosis of the rectal cancer,  
NOTE Confidence: 0.631037624545454  
01:17:30.239 --> 01:17:31.658 some relative indications.  
NOTE Confidence: 0.631037624545454  
01:17:31.660 --> 01:17:33.170 If you're tall big guy,  
NOTE Confidence: 0.631037624545454  
01:17:33.170 --> 01:17:35.702 you know it's sometimes very hard to  
NOTE Confidence: 0.631037624545454  
01:17:35.702 --> 01:17:37.874 reinforce the walls for low tumor.  
NOTE Confidence: 0.631037624545454  
01:17:37.880 --> 01:17:41.527 So sometimes APR is the only option.  
NOTE Confidence: 0.631037624545454  
01:17:41.530 --> 01:17:44.258 For APR we do the same surgery except  
NOTE Confidence: 0.631037624545454  
01:17:44.258 --> 01:17:46.694 they get an cost and we do the same  
NOTE Confidence: 0.631037624545454  
01:17:46.694 --> 01:17:47.990 surgery as the low anterior section.  
NOTE Confidence: 0.631037624545454

01:17:47.990 --> 01:17:50.420 But we also detect the \*\*\*\* so there's  
NOTE Confidence: 0.631037624545454

01:17:50.420 --> 01:17:53.030 an elliptical incision to core down.  
NOTE Confidence: 0.631037624545454

01:17:53.030 --> 01:17:55.967 Divide the sprinklers and then reach  
NOTE Confidence: 0.631037624545454

01:17:55.967 --> 01:17:58.229 from our dissection to the other  
NOTE Confidence: 0.631037624545454

01:17:58.229 --> 01:18:00.809 side and then we close up things.  
NOTE Confidence: 0.631037624545454

01:18:00.810 --> 01:18:02.646 So it's used for patients where  
NOTE Confidence: 0.631037624545454

01:18:02.646 --> 01:18:03.564 they're sphincter involvement.  
NOTE Confidence: 0.631037624545454

01:18:03.570 --> 01:18:05.838 It's also used in patients who have  
NOTE Confidence: 0.631037624545454

01:18:05.838 --> 01:18:07.560 incontinence in obese or called  
NOTE Confidence: 0.631037624545454

01:18:07.560 --> 01:18:09.270 patients with mid rectal humans.  
NOTE Confidence: 0.631037624545454

01:18:09.270 --> 01:18:10.326 We do an impr.  
NOTE Confidence: 0.631037624545454

01:18:10.326 --> 01:18:11.646 There's very good long term  
NOTE Confidence: 0.631037624545454

01:18:11.646 --> 01:18:12.410 functional outcomes,  
NOTE Confidence: 0.631037624545454

01:18:12.410 --> 01:18:14.366 but no one wants it because  
NOTE Confidence: 0.631037624545454

01:18:14.366 --> 01:18:15.670 it's a permanent collection.  
NOTE Confidence: 0.631037624545454

01:18:15.670 --> 01:18:17.945 Now these are for locally advanced diseases.

NOTE Confidence: 0.631037624545454  
01:18:17.950 --> 01:18:19.590 This is the public separation.  
NOTE Confidence: 0.631037624545454  
01:18:19.590 --> 01:18:21.330 There's different forms of it.  
NOTE Confidence: 0.631037624545454  
01:18:21.330 --> 01:18:22.890 You have the posterior pelvic  
NOTE Confidence: 0.631037624545454  
01:18:22.890 --> 01:18:24.450 example or complete public extempore.  
NOTE Confidence: 0.631037624545454  
01:18:24.450 --> 01:18:25.382 Both bladder,  
NOTE Confidence: 0.631037624545454  
01:18:25.382 --> 01:18:27.482 uterus and \*\*\*\*\* or removed  
NOTE Confidence: 0.631037624545454  
01:18:27.482 --> 01:18:28.886 or and then bladder,  
NOTE Confidence: 0.631037624545454  
01:18:28.890 --> 01:18:30.426 prostate and \*\*\*\*\* removed.  
NOTE Confidence: 0.631037624545454  
01:18:30.426 --> 01:18:33.238 Here's an example and then we are  
NOTE Confidence: 0.631037624545454  
01:18:33.238 --> 01:18:35.443 mobilizing the bladder and identifying  
NOTE Confidence: 0.631037624545454  
01:18:35.443 --> 01:18:37.844 the dorsal venous plexus ligating it.  
NOTE Confidence: 0.631037624545454  
01:18:37.844 --> 01:18:40.350 Then you know once we ligate we  
NOTE Confidence: 0.631037624545454  
01:18:40.422 --> 01:18:42.948 divide the prostate and the urethra.  
NOTE Confidence: 0.631037624545454  
01:18:42.950 --> 01:18:44.970 Now it's fully unblocked removed.  
NOTE Confidence: 0.631037624545454  
01:18:44.970 --> 01:18:47.358 So here's. State, water and \*\*\*\*\*.  
NOTE Confidence: 0.631037624545454

01:18:47.360 --> 01:18:49.104 We take it out and usually patients end  
NOTE Confidence: 0.631037624545454

01:18:49.104 --> 01:18:51.114 up with two colossal and two Oxo makes 1.  
NOTE Confidence: 0.631037624545454

01:18:51.120 --> 01:18:52.820 There's a colostomy for stool.  
NOTE Confidence: 0.631037624545454

01:18:52.820 --> 01:18:55.214 One is a urinary conduit because they  
NOTE Confidence: 0.631037624545454

01:18:55.214 --> 01:18:57.959 don't have a ladder anymore for your.  
NOTE Confidence: 0.631037624545454

01:18:57.960 --> 01:18:59.256 The outcomes from these are great.  
NOTE Confidence: 0.631037624545454

01:18:59.260 --> 01:19:01.426 Five year overall survival is 53%,  
NOTE Confidence: 0.631037624545454

01:19:01.426 --> 01:19:03.502 so doing a good operation upfront  
NOTE Confidence: 0.631037624545454

01:19:03.502 --> 01:19:05.629 is better for locally advanced  
NOTE Confidence: 0.631037624545454

01:19:05.629 --> 01:19:07.920 tumors rather than doing the half  
NOTE Confidence: 0.631037624545454

01:19:07.920 --> 01:19:09.700 you know half past reception  
NOTE Confidence: 0.80942132

01:19:09.700 --> 01:19:11.779 and then doing surgery for recurrent cancer,  
NOTE Confidence: 0.80942132

01:19:11.780 --> 01:19:15.188 survival drops to 20%.  
NOTE Confidence: 0.80942132

01:19:15.190 --> 01:19:17.254 Now recurrent cancer because I mentioned  
NOTE Confidence: 0.80942132

01:19:17.254 --> 01:19:19.929 that it's beyond the scope of this lecture,  
NOTE Confidence: 0.80942132

01:19:19.930 --> 01:19:21.840 but it's very difficult because

NOTE Confidence: 0.80942132

01:19:21.840 --> 01:19:23.750 you're in extra mesorectal planes,

NOTE Confidence: 0.80942132

01:19:23.750 --> 01:19:25.185 which means there's a lot of bleeding,

NOTE Confidence: 0.80942132

01:19:25.190 --> 01:19:26.660 and it also goes into the

NOTE Confidence: 0.80942132

01:19:26.660 --> 01:19:27.150 lateral compartments,

NOTE Confidence: 0.80942132

01:19:27.150 --> 01:19:29.740 so you think about things like creator.

NOTE Confidence: 0.80942132

01:19:29.740 --> 01:19:31.552 And it's very complicated because one

NOTE Confidence: 0.80942132

01:19:31.552 --> 01:19:33.500 year recurrence you have prior surgery,

NOTE Confidence: 0.80942132

01:19:33.500 --> 01:19:34.300 radiation fibrosis.

NOTE Confidence: 0.80942132

01:19:34.300 --> 01:19:36.700 So these are usually miserable surgeries,

NOTE Confidence: 0.80942132

01:19:36.700 --> 01:19:37.780 but if done right,

NOTE Confidence: 0.80942132

01:19:37.780 --> 01:19:40.170 they can be life saving for the patient.

NOTE Confidence: 0.80942132

01:19:40.170 --> 01:19:41.082 So in conclusion,

NOTE Confidence: 0.80942132

01:19:41.082 --> 01:19:42.906 you know rectal surgery is evolving,

NOTE Confidence: 0.80942132

01:19:42.910 --> 01:19:44.890 especially with Tony adjuvant therapy.

NOTE Confidence: 0.80942132

01:19:44.890 --> 01:19:47.398 Staples have made our life easier.

NOTE Confidence: 0.80942132

01:19:47.400 --> 01:19:50.440 Functional outcomes are getting better.

NOTE Confidence: 0.80942132

01:19:50.440 --> 01:19:52.232 And the goals of treatment for us from

NOTE Confidence: 0.80942132

01:19:52.232 --> 01:19:54.089 a certain perspective is local control.

NOTE Confidence: 0.80942132

01:19:54.090 --> 01:19:55.242 Improve the survival.

NOTE Confidence: 0.80942132

01:19:55.242 --> 01:19:57.162 Try to preserve the sphincter

NOTE Confidence: 0.80942132

01:19:57.162 --> 01:19:59.120 bladder and sexual function and

NOTE Confidence: 0.80942132

01:19:59.120 --> 01:20:00.990 try to improve their quality.

NOTE Confidence: 0.80942132

01:20:00.990 --> 01:20:03.438 So if we start off with,

NOTE Confidence: 0.80942132

01:20:03.440 --> 01:20:05.204 there were no good surgeries and patient

NOTE Confidence: 0.80942132

01:20:05.204 --> 01:20:06.930 had bought bad outcomes then 1980s.

NOTE Confidence: 0.80942132

01:20:06.930 --> 01:20:08.178 We made a lot of improvement.

NOTE Confidence: 0.80942132

01:20:08.180 --> 01:20:10.470 We then did minimally invasive

NOTE Confidence: 0.80942132

01:20:10.470 --> 01:20:12.050 surgery and now we're going

NOTE Confidence: 0.80942132

01:20:12.050 --> 01:20:13.730 to going back to no surgery,

NOTE Confidence: 0.80942132

01:20:13.730 --> 01:20:16.148 but we're getting better outcomes thanks

NOTE Confidence: 0.80942132

01:20:16.148 --> 01:20:19.138 to Mike and Tim and everyone else.

NOTE Confidence: 0.80942132

01:20:19.140 --> 01:20:20.070 So any questions?

NOTE Confidence: 0.65558160525

01:20:23.870 --> 01:20:25.950 Thanks Vicki, I'll pose one of the questions.

NOTE Confidence: 0.65558160525

01:20:25.950 --> 01:20:27.355 I'll leave one of the

NOTE Confidence: 0.65558160525

01:20:27.355 --> 01:20:28.760 questions posed in the chat.

NOTE Confidence: 0.65558160525

01:20:28.760 --> 01:20:32.792 So for clinical low, low digital rectal

NOTE Confidence: 0.65558160525

01:20:32.792 --> 01:20:36.588 cancers that are clinically tied to.

NOTE Confidence: 0.65558160525

01:20:36.590 --> 01:20:38.285 Versus instead of just taking

NOTE Confidence: 0.65558160525

01:20:38.285 --> 01:20:40.556 the station straight to TME and

NOTE Confidence: 0.65558160525

01:20:40.556 --> 01:20:42.095 considering preoperative RTE

NOTE Confidence: 0.65558160525

01:20:42.095 --> 01:20:44.147 followed by Transcendental Decision,

NOTE Confidence: 0.65558160525

01:20:44.150 --> 01:20:46.022 what what kind of sway is you for referring

NOTE Confidence: 0.65558160525

01:20:46.022 --> 01:20:47.527 this patient like this over to us?

NOTE Confidence: 0.74970366

01:20:48.710 --> 01:20:50.846 So for the I mean my personal preference,

NOTE Confidence: 0.74970366

01:20:50.850 --> 01:20:52.497 I like to do crazy and all excision see

NOTE Confidence: 0.74970366

01:20:52.497 --> 01:20:54.168 if they have any high risk features.

NOTE Confidence: 0.74970366

01:20:54.170 --> 01:20:56.708 Because once you do chemo radiation.  
NOTE Confidence: 0.74970366

01:20:56.710 --> 01:20:57.796 You won't know if they have  
NOTE Confidence: 0.74970366

01:20:57.796 --> 01:20:59.431 any any any of the high risk  
NOTE Confidence: 0.74970366

01:20:59.431 --> 01:21:00.587 features like Lancaster invasion.  
NOTE Confidence: 0.74970366

01:21:00.590 --> 01:21:01.900 Poor differentiation.  
NOTE Confidence: 0.74970366

01:21:01.900 --> 01:21:07.140 So personally I think it's much easier and.  
NOTE Confidence: 0.74970366

01:21:07.140 --> 01:21:09.444 No, it's better to do training  
NOTE Confidence: 0.74970366

01:21:09.444 --> 01:21:10.980 decision followed by humiliation.  
NOTE Confidence: 0.74970366

01:21:10.980 --> 01:21:12.948 But some patients do get chemoradiation,  
NOTE Confidence: 0.74970366

01:21:12.950 --> 01:21:16.104 then come and see us and we are never  
NOTE Confidence: 0.74970366

01:21:16.104 --> 01:21:18.570 certain if they had any good features  
NOTE Confidence: 0.74970366

01:21:18.570 --> 01:21:21.324 because sometimes the tumor is gone.  
NOTE Confidence: 0.74970366

01:21:21.330 --> 01:21:22.818 But in some patients it is an option.  
NOTE Confidence: 0.917380915

01:21:26.670 --> 01:21:27.330 Thank you.  
NOTE Confidence: 0.856953943636364

01:21:29.520 --> 01:21:30.703 I think all those questions have to  
NOTE Confidence: 0.856953943636364

01:21:30.703 --> 01:21:32.848 go on the chat, so feel free to.

NOTE Confidence: 0.7696209583333333  
01:21:35.160 --> 01:21:38.400 Answered some of them by text, but.  
NOTE Confidence: 0.7696209583333333  
01:21:38.400 --> 01:21:41.487 Feel free to put any questions in  
NOTE Confidence: 0.7696209583333333  
01:21:41.487 --> 01:21:43.546 the chat. I don't think anybody  
NOTE Confidence: 0.7696209583333333  
01:21:43.546 --> 01:21:45.016 can voice in that question  
NOTE Confidence: 0.812649230304348  
01:21:45.690 --> 01:21:47.634 Doctor really. I think one of the great  
NOTE Confidence: 0.812649230304348  
01:21:47.634 --> 01:21:49.731 points you brought up a few times during your  
NOTE Confidence: 0.812649230304348  
01:21:49.731 --> 01:21:52.015 talk is the question of survivorship, right?  
NOTE Confidence: 0.812649230304348  
01:21:52.015 --> 01:21:55.879 And I don't I can be the first person to say  
NOTE Confidence: 0.812649230304348  
01:21:55.879 --> 01:21:59.290 I'm guilty of not doing the best job in that,  
NOTE Confidence: 0.812649230304348  
01:21:59.290 --> 01:22:01.926 and should we be looking into, you know,  
NOTE Confidence: 0.812649230304348  
01:22:01.926 --> 01:22:04.152 building sort of more of a survivorship  
NOTE Confidence: 0.812649230304348  
01:22:04.152 --> 01:22:06.118 program for our rectal cancer patients  
NOTE Confidence: 0.812649230304348  
01:22:06.118 --> 01:22:07.708 in terms of sexual health,  
NOTE Confidence: 0.812649230304348  
01:22:07.710 --> 01:22:09.738 rectal symptoms, local symptoms,  
NOTE Confidence: 0.812649230304348  
01:22:09.738 --> 01:22:12.068 because they are struggling and  
NOTE Confidence: 0.812649230304348

01:22:12.068 --> 01:22:13.856 they don't know that we provide  
NOTE Confidence: 0.812649230304348

01:22:13.856 --> 01:22:15.668 them the support that they need?  
NOTE Confidence: 0.812649230304348

01:22:15.670 --> 01:22:17.006 And they come to me and I say,  
NOTE Confidence: 0.812649230304348

01:22:17.010 --> 01:22:17.850 go see Doctor Reddy.  
NOTE Confidence: 0.812649230304348

01:22:17.850 --> 01:22:19.500 But that you know that's not helpful.  
NOTE Confidence: 0.885892715

01:22:20.960 --> 01:22:23.120 No, so we actually believe it or not.  
NOTE Confidence: 0.885892715

01:22:23.120 --> 01:22:25.304 After five years we still follow  
NOTE Confidence: 0.885892715

01:22:25.304 --> 01:22:27.209 the patients mainly for all  
NOTE Confidence: 0.885892715

01:22:27.209 --> 01:22:28.950 their other side effects. So  
NOTE Confidence: 0.911900501

01:22:28.960 --> 01:22:30.206 do you feel like you're taking that  
NOTE Confidence: 0.911900501

01:22:30.206 --> 01:22:32.545 on your plate, or can we do something  
NOTE Confidence: 0.911900501

01:22:32.545 --> 01:22:34.926 more institutionally to sort of have  
NOTE Confidence: 0.911900501

01:22:34.926 --> 01:22:36.958 a better colorectal survivorship,  
NOTE Confidence: 0.911900501

01:22:36.960 --> 01:22:39.506 or even just GI in general, right program?  
NOTE Confidence: 0.911900501

01:22:39.506 --> 01:22:41.480 Should we enhance that? I mean,  
NOTE Confidence: 0.911900501

01:22:41.480 --> 01:22:42.900 I think we do a great job with breast,

NOTE Confidence: 0.911900501

01:22:42.900 --> 01:22:44.628 but not such a good job with GI.

NOTE Confidence: 0.617488312

01:22:45.160 --> 01:22:47.040 So we've started our app.

NOTE Confidence: 0.617488312

01:22:47.040 --> 01:22:49.400 Have started doing this more OK.

NOTE Confidence: 0.617488312

01:22:49.400 --> 01:22:52.040 Patient patients are happy about this.

NOTE Confidence: 0.617488312

01:22:52.040 --> 01:22:53.204 Before we used to say five

NOTE Confidence: 0.617488312

01:22:53.204 --> 01:22:54.560 years ago and see us and they,

NOTE Confidence: 0.617488312

01:22:54.560 --> 01:22:56.496 you know they had all kinds of symptoms

NOTE Confidence: 0.617488312

01:22:56.500 --> 01:22:57.796 and they didn't know what was going on.

NOTE Confidence: 0.617488312

01:22:57.800 --> 01:22:59.300 They would reach out to everyone.

NOTE Confidence: 0.617488312

01:22:59.300 --> 01:23:00.637 Used to go on support groups and

NOTE Confidence: 0.617488312

01:23:00.637 --> 01:23:01.810 they they would just complain,

NOTE Confidence: 0.617488312

01:23:01.810 --> 01:23:03.907 but now we have made it a point that

NOTE Confidence: 0.617488312

01:23:03.907 --> 01:23:06.129 even after five years we followed them.

NOTE Confidence: 0.617488312

01:23:06.130 --> 01:23:08.686 They they come and see us once a year.

NOTE Confidence: 0.617488312

01:23:08.690 --> 01:23:09.714 If they're you know,

NOTE Confidence: 0.617488312

01:23:09.714 --> 01:23:11.557 if they see no improvement then they  
NOTE Confidence: 0.617488312

01:23:11.557 --> 01:23:13.075 kind of disappear on their own,  
NOTE Confidence: 0.617488312

01:23:13.080 --> 01:23:13.809 but they still  
NOTE Confidence: 0.763909936

01:23:14.190 --> 01:23:15.978 send them all to you. Is what you're saying.  
NOTE Confidence: 0.654143741166667

01:23:17.420 --> 01:23:19.037 No, even for the annual cancer anal  
NOTE Confidence: 0.654143741166667

01:23:19.037 --> 01:23:20.379 cancer with rectal cancer anyway.  
NOTE Confidence: 0.717619804

01:23:21.930 --> 01:23:24.170 Of chronic symptoms and incontinence.  
NOTE Confidence: 0.717619804

01:23:24.170 --> 01:23:26.790 For years, local symptoms,  
NOTE Confidence: 0.717619804

01:23:26.790 --> 01:23:29.081 urinary symptoms, and I think  
NOTE Confidence: 0.717619804

01:23:29.081 --> 01:23:30.716 they struggle on their own,  
NOTE Confidence: 0.717619804

01:23:30.720 --> 01:23:31.605 so I think that's something  
NOTE Confidence: 0.717619804

01:23:31.605 --> 01:23:32.870 we need to focus on more as a  
NOTE Confidence: 0.556223566

01:23:32.880 --> 01:23:34.320 group. The Sack board is.  
NOTE Confidence: 0.556223566

01:23:34.320 --> 01:23:36.132 We even have patients with cervical  
NOTE Confidence: 0.556223566

01:23:36.132 --> 01:23:37.340 cancer and prostate cancer.  
NOTE Confidence: 0.556223566

01:23:37.340 --> 01:23:38.730 After radiation that we're managing,

NOTE Confidence: 0.793861154

01:23:38.740 --> 01:23:40.908 right, right, right, right.

NOTE Confidence: 0.793861154

01:23:40.908 --> 01:23:43.354 OK, well, I'm glad for

NOTE Confidence: 0.793861154

01:23:43.354 --> 01:23:45.258 your collaboration on that.

NOTE Confidence: 0.793861154

01:23:45.260 --> 01:23:47.630 Do you routinely?

NOTE Confidence: 0.5710971

01:23:47.630 --> 01:23:50.282 Therapy for like 12 floor physical

NOTE Confidence: 0.5710971

01:23:50.282 --> 01:23:51.708 therapy? Uh, that's already.

NOTE Confidence: 0.912942789375

01:23:53.110 --> 01:23:55.382 So that's a little bit more difficult because

NOTE Confidence: 0.912942789375

01:23:55.382 --> 01:23:57.915 it has to be based on insurance companies.

NOTE Confidence: 0.912942789375

01:23:57.920 --> 01:23:59.915 Pelvic floor therapy does help the patients.

NOTE Confidence: 0.6134629682

01:24:01.970 --> 01:24:03.590 Sacral nerve modulation helps patients

NOTE Confidence: 0.6134629682

01:24:03.590 --> 01:24:05.210 with low interior section syndrome.

NOTE Confidence: 0.6134629682

01:24:05.210 --> 01:24:06.615 The problem with that is

NOTE Confidence: 0.6134629682

01:24:06.615 --> 01:24:08.020 that you have to implant.

NOTE Confidence: 0.6134629682

01:24:08.020 --> 01:24:09.580 This device and they can't get

NOTE Confidence: 0.6134629682

01:24:09.580 --> 01:24:11.456 MRI's after so a lot of patients

NOTE Confidence: 0.6134629682

01:24:11.456 --> 01:24:13.016 don't don't want to go for  
NOTE Confidence: 0.6134629682

01:24:13.016 --> 01:24:14.657 that at least for five years.  
NOTE Confidence: 0.6134629682

01:24:14.660 --> 01:24:16.250 We don't want to do it.  
NOTE Confidence: 0.6134629682

01:24:16.250 --> 01:24:17.680 A lot of times trouble  
NOTE Confidence: 0.92935502

01:24:17.690 --> 01:24:21.225 with who does pelvic floor therapy here?  
NOTE Confidence: 0.92935502

01:24:21.230 --> 01:24:26.825 We do. OK, I can't figure out how to  
NOTE Confidence: 0.92935502

01:24:26.825 --> 01:24:29.050 put the referral in. Private world  
NOTE Confidence: 0.790497993571429

01:24:29.280 --> 01:24:32.136 send them to us so we get manometry  
NOTE Confidence: 0.790497993571429

01:24:32.136 --> 01:24:34.070 and everything with GI and then  
NOTE Confidence: 0.76988206

01:24:34.620 --> 01:24:35.916 so they can come to colorectal.  
NOTE Confidence: 0.76988206

01:24:35.920 --> 01:24:37.066 OK so that's great to know.  
NOTE Confidence: 0.782521528761905

01:24:38.500 --> 01:24:40.810 One thing we're trying to do  
NOTE Confidence: 0.782521528761905

01:24:40.810 --> 01:24:43.290 is actually and and mind you  
NOTE Confidence: 0.782521528761905

01:24:43.290 --> 01:24:45.846 is trying to advocate for Cdr  
NOTE Confidence: 0.782521528761905

01:24:45.846 --> 01:24:48.432 diagnosis code for a large so that.  
NOTE Confidence: 0.782521528761905

01:24:48.432 --> 01:24:49.844 You know there's no

NOTE Confidence: 0.796467184090909  
01:24:51.160 --> 01:24:51.858 official code.  
NOTE Confidence: 0.796467184090909  
01:24:51.858 --> 01:24:54.301 But I think that that's more directed  
NOTE Confidence: 0.796467184090909  
01:24:54.301 --> 01:24:55.996 pelvic floor therapy because there  
NOTE Confidence: 0.796467184090909  
01:24:55.996 --> 01:24:58.450 is someone like in YPB who does it.  
NOTE Confidence: 0.796467184090909  
01:24:58.450 --> 01:25:00.410 But then I send the patients and they  
NOTE Confidence: 0.796467184090909  
01:25:00.410 --> 01:25:01.721 don't understand the issues, right?  
NOTE Confidence: 0.796467184090909  
01:25:01.721 --> 01:25:03.347 So patient comes back and they're  
NOTE Confidence: 0.796467184090909  
01:25:03.347 --> 01:25:04.470 like what was that?  
NOTE Confidence: 0.796467184090909  
01:25:04.470 --> 01:25:05.478 It didn't help me at all,  
NOTE Confidence: 0.7579907125  
01:25:05.810 --> 01:25:07.091 and not only that, some of the  
NOTE Confidence: 0.7579907125  
01:25:07.091 --> 01:25:08.429 problems that they use are very  
NOTE Confidence: 0.7579907125  
01:25:08.429 --> 01:25:09.176 uncomfortable for patients,  
NOTE Confidence: 0.7579907125  
01:25:09.180 --> 01:25:11.500 especially had radiation treatment.  
NOTE Confidence: 0.674535825714286  
01:25:11.630 --> 01:25:13.070 That right they don't understand the  
NOTE Confidence: 0.674535825714286  
01:25:13.070 --> 01:25:14.340 concepts? OK, that's great to know.  
NOTE Confidence: 0.825889595238095

01:25:17.200 --> 01:25:18.859 The one that the one of the  
NOTE Confidence: 0.825889595238095

01:25:18.859 --> 01:25:20.481 questions in the chat doctor Reddy  
NOTE Confidence: 0.825889595238095

01:25:20.481 --> 01:25:22.191 is have you started adopting a  
NOTE Confidence: 0.825889595238095

01:25:22.191 --> 01:25:23.681 wait and weight watch approach?  
NOTE Confidence: 0.825889595238095

01:25:23.681 --> 01:25:24.989 Wasn't waiting approach included  
NOTE Confidence: 0.825889595238095

01:25:24.989 --> 01:25:26.930 patients who are surgical candidates?  
NOTE Confidence: 0.73660856

01:25:29.070 --> 01:25:32.479 It's a it makes me very nervous, but we have.  
NOTE Confidence: 0.82869315

01:25:35.000 --> 01:25:38.200 Sadly, I'm still if if someone who's  
NOTE Confidence: 0.82869315

01:25:38.200 --> 01:25:40.996 40 comes in, chances are we don't  
NOTE Confidence: 0.82869315

01:25:40.996 --> 01:25:42.916 follow away from watch approach.  
NOTE Confidence: 0.82869315

01:25:42.920 --> 01:25:45.958 We do advocate for them even a  
NOTE Confidence: 0.82869315

01:25:45.958 --> 01:25:47.491 couple of times we have gotten burned  
NOTE Confidence: 0.82869315

01:25:47.491 --> 01:25:49.078 for some patients who have had  
NOTE Confidence: 0.82869315

01:25:49.078 --> 01:25:50.680 treatment somewhere else and we have,  
NOTE Confidence: 0.82869315

01:25:50.680 --> 01:25:53.130 you know they have seen local recurrences.  
NOTE Confidence: 0.82869315

01:25:53.130 --> 01:25:54.285 And we have taken care of them.

NOTE Confidence: 0.82869315

01:25:54.290 --> 01:25:56.404 It's not that they did anything wrong.

NOTE Confidence: 0.82869315

01:25:56.410 --> 01:25:56.900 Sometimes patients,

NOTE Confidence: 0.82869315

01:25:56.900 --> 01:25:58.370 when they see a local recurrence,

NOTE Confidence: 0.82869315

01:25:58.370 --> 01:26:00.372 they kind of get upset with the with

NOTE Confidence: 0.82869315

01:26:00.372 --> 01:26:01.786 the people locally because they say oh,

NOTE Confidence: 0.82869315

01:26:01.790 --> 01:26:03.440 and that's why we didn't show

NOTE Confidence: 0.82869315

01:26:03.440 --> 01:26:05.249 it and you missed the cancer.

NOTE Confidence: 0.82869315

01:26:05.250 --> 01:26:05.560 What's

NOTE Confidence: 0.854355522

01:26:05.570 --> 01:26:07.170 been your experience with salvage?

NOTE Confidence: 0.854355522

01:26:07.170 --> 01:26:08.290 For those patients with?

NOTE Confidence: 0.774360371892857

01:26:09.280 --> 01:26:12.214 So if you get them in time so it's

NOTE Confidence: 0.774360371892857

01:26:12.214 --> 01:26:14.392 interesting to patients who have had

NOTE Confidence: 0.774360371892857

01:26:14.392 --> 01:26:16.602 endoscopy and the and the pathology

NOTE Confidence: 0.774360371892857

01:26:16.602 --> 01:26:19.143 has shown no tumor in the wall,

NOTE Confidence: 0.774360371892857

01:26:19.150 --> 01:26:20.715 those patients are more reticent

NOTE Confidence: 0.774360371892857

01:26:20.715 --> 01:26:22.830 to go for a radical surgery.  
NOTE Confidence: 0.774360371892857

01:26:22.830 --> 01:26:25.042 So even if the MRI shows something  
NOTE Confidence: 0.774360371892857

01:26:25.042 --> 01:26:26.950 because the MRI will always say  
NOTE Confidence: 0.774360371892857

01:26:26.950 --> 01:26:29.029 it can't rule out tumor or they  
NOTE Confidence: 0.774360371892857

01:26:29.098 --> 01:26:31.246 you know they're kind of nebulous,  
NOTE Confidence: 0.774360371892857

01:26:31.250 --> 01:26:33.110 patients don't go for surgery,  
NOTE Confidence: 0.774360371892857

01:26:33.110 --> 01:26:35.360 especially if it's an APR.  
NOTE Confidence: 0.774360371892857

01:26:35.360 --> 01:26:36.510 But those patients,  
NOTE Confidence: 0.774360371892857

01:26:36.510 --> 01:26:38.390 unfortunately they come with  
NOTE Confidence: 0.774360371892857

01:26:38.390 --> 01:26:39.800 locally advanced disease,  
NOTE Confidence: 0.774360371892857

01:26:39.800 --> 01:26:40.952 like they're circumferential  
NOTE Confidence: 0.774360371892857

01:26:40.952 --> 01:26:41.720 resection margins.  
NOTE Confidence: 0.774360371892857

01:26:41.720 --> 01:26:43.760 I mean, we had someone who had a  
NOTE Confidence: 0.774360371892857

01:26:43.760 --> 01:26:45.300 complete who done it memorial,  
NOTE Confidence: 0.774360371892857

01:26:45.300 --> 01:26:48.667 who almost had a near complete response.  
NOTE Confidence: 0.774360371892857

01:26:48.670 --> 01:26:51.470 After about a year started having symptoms.

NOTE Confidence: 0.774360371892857  
01:26:51.470 --> 01:26:53.350 Endoscopy biopsy didn't show anything.  
NOTE Confidence: 0.774360371892857  
01:26:53.350 --> 01:26:55.020 One of our endoscopies actually  
NOTE Confidence: 0.774360371892857  
01:26:55.020 --> 01:26:56.690 did a deeper biopsy because  
NOTE Confidence: 0.774360371892857  
01:26:56.752 --> 01:26:58.337 I couldn't convince the guy.  
NOTE Confidence: 0.774360371892857  
01:26:58.340 --> 01:26:58.980 Found cancer,  
NOTE Confidence: 0.774360371892857  
01:26:58.980 --> 01:27:00.900 he had a 10 centimeter lesion  
NOTE Confidence: 0.774360371892857  
01:27:00.900 --> 01:27:02.424 with all circumferential resection  
NOTE Confidence: 0.774360371892857  
01:27:02.424 --> 01:27:04.866 margins positive and he did not  
NOTE Confidence: 0.774360371892857  
01:27:04.866 --> 01:27:07.040 want the public's information.  
NOTE Confidence: 0.774360371892857  
01:27:07.040 --> 01:27:08.864 It was positive on the prostate  
NOTE Confidence: 0.774360371892857  
01:27:08.864 --> 01:27:10.744 so you know this this survival  
NOTE Confidence: 0.774360371892857  
01:27:10.744 --> 01:27:11.928 is going to be  
NOTE Confidence: 0.777209975  
01:27:12.840 --> 01:27:13.980 and what I found too is,  
NOTE Confidence: 0.777209975  
01:27:13.980 --> 01:27:16.542 I think promising a patient the  
NOTE Confidence: 0.777209975  
01:27:16.542 --> 01:27:18.757 option of watchful waiting up  
NOTE Confidence: 0.777209975

01:27:18.757 --> 01:27:20.516 front is challenging because they  
NOTE Confidence: 0.777209975

01:27:20.516 --> 01:27:22.460 say this was proposed to me as an  
NOTE Confidence: 0.777209975

01:27:22.520 --> 01:27:24.464 option or read about it and I always  
NOTE Confidence: 0.777209975

01:27:24.464 --> 01:27:26.407 tell them we need to wait to see  
NOTE Confidence: 0.777209975

01:27:26.407 --> 01:27:28.004 what your response is to therapy.  
NOTE Confidence: 0.777209975

01:27:28.004 --> 01:27:29.664 We cannot commit to this.  
NOTE Confidence: 0.777209975

01:27:29.670 --> 01:27:30.591 Day one, right?  
NOTE Confidence: 0.777209975

01:27:30.591 --> 01:27:32.740 So I think that needs to be  
NOTE Confidence: 0.777209975

01:27:32.816 --> 01:27:34.460 made clear to patients.  
NOTE Confidence: 0.711509165

01:27:35.190 --> 01:27:36.720 And all of that, I mean, how many pay?  
NOTE Confidence: 0.711509165

01:27:36.720 --> 01:27:38.396 I mean, we have patients who.  
NOTE Confidence: 0.711509165

01:27:38.396 --> 01:27:40.639 I mean you know this because they  
NOTE Confidence: 0.711509165

01:27:40.639 --> 01:27:42.662 all complain to you because I do  
NOTE Confidence: 0.711509165

01:27:42.662 --> 01:27:44.628 a rectal exam after radiation.  
NOTE Confidence: 0.711509165

01:27:44.630 --> 01:27:45.830 And they're like, oh,  
NOTE Confidence: 0.711509165

01:27:45.830 --> 01:27:47.030 I can't tolerate this.

NOTE Confidence: 0.711509165

01:27:47.030 --> 01:27:50.326 And if you can't do a rectal exam,

NOTE Confidence: 0.711509165

01:27:50.330 --> 01:27:51.662 I think watching weight is out

NOTE Confidence: 0.711509165

01:27:51.662 --> 01:27:53.480 of the out of the. It's not

NOTE Confidence: 0.757273777142857

01:27:53.490 --> 01:27:55.090 right? It's clear that there's

NOTE Confidence: 0.757273777142857

01:27:55.090 --> 01:27:56.180 residual disease, right?

NOTE Confidence: 0.77708846

01:27:56.250 --> 01:27:58.038 No even if there is not

NOTE Confidence: 0.77708846

01:27:58.038 --> 01:27:59.500 residual disease, it's

NOTE Confidence: 0.7433399104

01:28:00.370 --> 01:28:01.585 that they're not that you're

NOTE Confidence: 0.7433399104

01:28:01.585 --> 01:28:02.800 not able to surveil them.

NOTE Confidence: 0.7433399104

01:28:02.800 --> 01:28:04.250 Is what you're saying right?

NOTE Confidence: 0.7433399104

01:28:04.250 --> 01:28:05.218 Yeah, I got that.

NOTE Confidence: 0.74954887176

01:28:06.360 --> 01:28:09.249 Yeah, I think you know my view is we'll

NOTE Confidence: 0.74954887176

01:28:09.249 --> 01:28:11.877 we'll see the final results from the

NOTE Confidence: 0.74954887176

01:28:11.877 --> 01:28:15.071 Oprah trial and offer trial and get

NOTE Confidence: 0.74954887176

01:28:15.071 --> 01:28:17.550 different pronunciations before before.

NOTE Confidence: 0.74954887176

01:28:17.550 --> 01:28:21.720 I think this gets more mainstream.  
NOTE Confidence: 0.62238383

01:28:23.040 --> 01:28:24.790 Moving our program forward right?  
NOTE Confidence: 0.62238383

01:28:24.790 --> 01:28:26.986 We should probably start to consider  
NOTE Confidence: 0.62238383

01:28:26.986 --> 01:28:29.100 this more for select patients.  
NOTE Confidence: 0.818789692857143

01:28:30.450 --> 01:28:32.280 And now I mean we're seeing  
NOTE Confidence: 0.818789692857143

01:28:32.280 --> 01:28:33.816 complete response rates of close  
NOTE Confidence: 0.818789692857143

01:28:33.816 --> 01:28:35.586 to like 30%, right, right?  
NOTE Confidence: 0.818789692857143

01:28:35.586 --> 01:28:38.406 I mean, compared to 10 to 15%?  
NOTE Confidence: 0.818789692857143

01:28:38.410 --> 01:28:40.420 I mean, back then I used to only feel bad  
NOTE Confidence: 0.818789692857143

01:28:40.477 --> 01:28:44.048 10 to 15% of the time that I did an APR.  
NOTE Confidence: 0.818789692857143

01:28:44.050 --> 01:28:45.338 And there's no cancer.  
NOTE Confidence: 0.818789692857143

01:28:45.338 --> 01:28:47.948 Now I gotta feel worse 30% of the time.  
NOTE Confidence: 0.818789692857143

01:28:47.948 --> 01:28:48.980 I feel worse, right?  
NOTE Confidence: 0.915972428

01:28:54.380 --> 01:28:56.170 Other questions from the group.  
NOTE Confidence: 0.637048735

01:28:58.520 --> 01:29:00.836 Got 21, you're still holding on.  
NOTE Confidence: 0.703625002818182

01:29:03.020 --> 01:29:06.480 Oh, that we we did set this to go until 8:30,

NOTE Confidence: 0.703625002818182  
01:29:06.480 --> 01:29:08.640 but I think the goal was about 30 minutes  
NOTE Confidence: 0.703625002818182  
01:29:08.640 --> 01:29:10.597 per presentation with questions so.  
NOTE Confidence: 0.703625002818182  
01:29:10.600 --> 01:29:13.855 So we are at around 8:00 o'clock.  
NOTE Confidence: 0.703625002818182  
01:29:13.860 --> 01:29:16.698 If anyone has any burning questions,  
NOTE Confidence: 0.703625002818182  
01:29:16.700 --> 01:29:17.932 you can either put it in the  
NOTE Confidence: 0.703625002818182  
01:29:17.932 --> 01:29:19.139 chat before I finish talking,  
NOTE Confidence: 0.703625002818182  
01:29:19.140 --> 01:29:20.019 really finish talking,  
NOTE Confidence: 0.703625002818182  
01:29:20.019 --> 01:29:21.777 or you can email us directly.  
NOTE Confidence: 0.703625002818182  
01:29:21.780 --> 01:29:25.400 Of course our emails are  
NOTE Confidence: 0.703625002818182  
01:29:25.400 --> 01:29:25.691 ourfirstname.lastname@yale.edu  
NOTE Confidence: 0.703625002818182  
01:29:25.691 --> 01:29:27.146 and on on the website.  
NOTE Confidence: 0.84685911  
01:29:28.430 --> 01:29:31.960 Happy to communicate. Parting words,  
NOTE Confidence: 0.84685911  
01:29:31.960 --> 01:29:33.560 thank you for organizing this.  
NOTE Confidence: 0.84685911  
01:29:33.560 --> 01:29:34.400 I think it was great.  
NOTE Confidence: 0.9219406033333333  
01:29:35.830 --> 01:29:36.340 Thank you Mike.  
NOTE Confidence: 0.94350766

01:29:40.170 --> 01:29:42.375 Thank you all. Have a great night.

NOTE Confidence: 0.884959166666667

01:29:44.860 --> 01:29:49.000 See you soon. Alright, take care bye bye.