WEBVTT

00:00:00.000 --> 00:00:02.405 Support for Yale Cancer Answers

NOTE Confidence: 0.86825037

00:00:02.405 --> 00:00:04.810 comes from AstraZeneca dedicated

NOTE Confidence: 0.86825037

00:00:04.890 --> 00:00:07.854 to providing innovative treatment

NOTE Confidence: 0.86825037

00:00:07.854 --> 00:00:11.559 options for people living with

NOTE Confidence: 0.86825037

00:00:11.559 --> 00:00:12.300 cancer. Learn more at astrazeneca-us.com.

NOTE Confidence: 0.8466502

00:00:14.420 --> 00:00:15.844 Welcome to Yale Cancer Answers

NOTE Confidence: 0.8466502

00:00:15.844 --> 00:00:17.268 with your host

NOTE Confidence: 0.8466502

00:00:17.270 --> 00:00:19.050 Doctor Anees Chagpar.

NOTE Confidence: 0.8466502

00:00:19.050 --> 00:00:20.950 Yale Cancer Answers features the

NOTE Confidence: 0.8466502

00:00:20.950 --> 00:00:23.285 latest information on cancer care by

NOTE Confidence: 0.8466502

00:00:23.285 --> 00:00:24.781 welcoming oncologists and specialists

NOTE Confidence: 0.8466502

00:00:24.781 --> 00:00:27.291 who are on the forefront of the

NOTE Confidence: 0.8466502

00:00:27.291 --> 00:00:29.019 battle to fight cancer. This week

NOTE Confidence: 0.8466502

00:00:29.020 --> 00:00:30.800 it's a conversation about liver

NOTE Confidence: 0.8466502

00:00:30.800 --> 00:00:32.580 cancer with Doctor Stacy Stein.

NOTE Confidence: 0.8466502

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00:00:32.580 --> 00:00:34.722 Doctor Stein is an associate professor

NOTE Confidence: 0.8466502

00:00:34.722 --> 00:00:36.904 of internal medicine in medical oncology

NOTE Confidence: 0.8466502

00:00:36.904 --> 00:00:38.980 at the Yale School of Medicine,

NOTE Confidence: 0.8466502

00:00:38.980 --> 00:00:41.116 where doctor Chagpar is a

NOTE Confidence: 0.8466502

00:00:41.116 --> 00:00:42.540 professor of surgical oncology.

NOTE Confidence: 0.8866099

00:00:43.870 --> 00:00:45.956 So Stacy, we don't know

NOTE Confidence: 0.8866099

00:00:45.956 --> 00:00:48.239 a whole lot about liver cancers.

NOTE Confidence: 0.8866099

00:00:48.240 --> 00:00:50.130 We certainly talk a lot about

NOTE Confidence: 0.8866099

00:00:50.130 --> 00:00:51.930 breast cancer and colon cancers,

NOTE Confidence: 0.8866099

00:00:51.930 --> 00:00:54.218 but tell us a little bit more about

NOTE Confidence: 0.8866099

00:00:54.218 --> 00:00:56.637 how we think about liver cancers.

NOTE Confidence: 0.8866099

00:00:56.640 --> 00:00:57.980 Yeah,

NOTE Confidence: 0.8866099

00:00:57.980 --> 00:00:58.640 you're right.

NOTE Confidence: 0.8866099

00:00:58.640 --> 00:01:00.950 I don't think it gets the same

NOTE Confidence: 0.8866099

00:01:00.950 --> 00:01:02.688 attention as some other cancers

NOTE Confidence: 0.8866099

00:01:02.690 --> 00:01:04.700 in the public.

NOTE Confidence: 0.8866099

00:01:04.700 --> 00:01:07.269 But I think it's a really important

NOTE Confidence: 0.8866099

00:01:07.269 --> 00:01:09.664 cancer to talk about because it's

NOTE Confidence: 0.8866099

00:01:09.664 --> 00:01:12.492 actually one of the few cancers that is

NOTE Confidence: 0.8866099

00:01:12.572 --> 00:01:14.994 still on the rise in our country.

NOTE Confidence: 0.8866099

00:01:15.000 --> 00:01:17.912 Some people might be familiar

NOTE Confidence: 0.8866099

00:01:17.912 --> 00:01:21.495 with some of the traditional causes of

NOTE Confidence: 0.8866099

00:01:21.495 --> 00:01:24.305 cirrhosis which causes liver cancer.

NOTE Confidence: 0.8866099

00:01:24.310 --> 00:01:25.780 Worldwide this is a very

NOTE Confidence: 0.8866099

00:01:25.780 --> 00:01:28.720 prevalent cancer,

NOTE Confidence: 0.8866099

00:01:28.720 --> 00:01:31.180 especially because of hepatitis B

NOTE Confidence: 0.8866099

00:01:31.180 --> 00:01:34.196 and mother's passing it on to their

NOTE Confidence: 0.8866099

00:01:34.196 --> 00:01:36.556 babies. In the United States,

NOTE Confidence: 0.8866099

00:01:36.560 --> 00:01:39.758 we see more people that have

NOTE Confidence: 0.8866099

00:01:39.758 --> 00:01:41.890 developed cirrhosis from hepatitis

NOTE Confidence: 0.8866099

00:01:41.980 --> 00:01:43.825 C or alcohol use, but

NOTE Confidence: 0.8866099

00:01:43.825 --> 00:01:46.255 another cause is actually on the

NOTE Confidence: 0.8866099

00:01:46.255 --> 00:01:49.174 rise in the United States that

NOTE Confidence: 0.8866099

00:01:49.174 --> 00:01:52.748 we don't talk about a lot and that

NOTE Confidence: 0.8866099

00:01:52.748 --> 00:01:55.398 is something called NASH Cirrhosis,

NOTE Confidence: 0.8866099

00:01:55.400 --> 00:01:58.424 which is related to the obesity epidemic,

NOTE Confidence: 0.8866099

00:01:58.430 --> 00:02:01.878 and we're seeing that more commonly now and

NOTE Confidence: 0.8866099

00:02:01.880 --> 00:02:04.040 I think it's something important

NOTE Confidence: 0.8866099

00:02:05.340 --> 00:02:08.420 that people are more aware of and primary

NOTE Confidence: 0.8866099

00:02:08.420 --> 00:02:10.950 care physicians are more aware of,

NOTE Confidence: 0.8866099

00:02:10.950 --> 00:02:12.678 to screen their patients.

NOTE Confidence: 0.8418756

00:02:13.480 --> 00:02:16.280 How exactly do they do that

NOTE Confidence: 0.8418756

00:02:16.280 --> 00:02:19.079 and is that the same concept of

NOTE Confidence: 0.8418756

00:02:19.079 --> 00:02:21.878 fatty liver that we sometimes hear about?

NOTE Confidence: 0.8418756

00:02:21.880 --> 00:02:24.680 And is there screening for it? And

NOTE Confidence: 0.8418756

00:02:24.680 --> 00:02:26.430 if so, what is that?

NOTE Confidence: 0.8418756

00:02:26.430 --> 00:02:28.830 Often you know

NOTE Confidence: 0.8418756

00:02:28.830 --> 00:02:30.486 who is at risk

NOTE Confidence: 0.8418756

00:02:30.486 --> 00:02:32.200 for those kind of factors,

NOTE Confidence: 0.8418756

00:02:32.200 --> 00:02:33.730 so it's people that are

NOTE Confidence: 0.8418756

00:02:33.730 --> 00:02:35.260 older that may have obesity,

NOTE Confidence: 0.8418756

00:02:35.260 --> 00:02:36.178 high blood pressure,

NOTE Confidence: 0.8418756

00:02:36.178 --> 00:02:36.790 diabetes, right?

NOTE Confidence: 0.8418756

00:02:36.790 --> 00:02:38.897 So a lot of these common diagnosis

NOTE Confidence: 0.8418756

00:02:38.897 --> 00:02:40.693 that travel together and then you

NOTE Confidence: 0.8418756

00:02:40.693 --> 00:02:42.367 know it's also not uncommon for

NOTE Confidence: 0.8418756

00:02:42.367 --> 00:02:44.015 people with all these diagnosis

NOTE Confidence: 0.8418756

00:02:44.015 --> 00:02:45.655 to be on several medications,

NOTE Confidence: 0.8418756

00:02:45.660 --> 00:02:47.837 and then they may have

NOTE Confidence: 0.8418756

00:02:47.837 --> 00:02:49.720 blood work where their liver enzymes

NOTE Confidence: 0.8418756

00:02:49.720 --> 00:02:51.778 are a little bit out of range,

NOTE Confidence: 0.8418756

00:02:51.780 --> 00:02:53.478 but I think it usually gets

NOTE Confidence: 0.8418756

00:02:53.478 --> 00:02:55.603 ascribed to maybe a side effect of

NOTE Confidence: 0.8418756

00:02:55.603 --> 00:02:57.451 one of the medications that they

NOTE Confidence: 0.8418756

00:02:57.451 --> 00:02:59.388 were on instead of thinking about

NOTE Confidence: 0.8418756

00:02:59.390 --> 00:03:01.535 underlying liver disease and so

NOTE Confidence: 0.8418756

00:03:01.535 --> 00:03:04.420 it's important when we see

NOTE Confidence: 0.8418756

00:03:04.420 --> 00:03:06.585 elevations in liver enzymes to

NOTE Confidence: 0.8418756

00:03:06.585 --> 00:03:09.204 be thinking that this might be

NOTE Confidence: 0.8418756

00:03:09.204 --> 00:03:10.696 a primary liver issue.

NOTE Confidence: 0.88217324

00:03:12.550 --> 00:03:14.720 Interesting, and

NOTE Confidence: 0.88217324

00:03:14.720 --> 00:03:17.450 because we've talked on this show so

NOTE Confidence: 0.88217324

00:03:17.450 --> 00:03:21.062 much and on others about how there really

NOTE Confidence: 0.88217324

00:03:21.062 --> 00:03:24.240 is this obesity epidemic and

NOTE Confidence: 0.88217324

00:03:24.240 --> 00:03:28.142 over 40% some people even say over 50% of

NOTE Confidence: 0.88217324

00:03:28.142 --> 00:03:30.734 our population are overweight or obese,

NOTE Confidence: 0.88217324

00:03:30.740 --> 00:03:33.596 how often should you be getting

NOTE Confidence: 0.88217324

00:03:33.596 --> 00:03:35.500 those liver enzymes checked?

NOTE Confidence: 0.88217324

00:03:35.500 --> 00:03:37.660 And if they are abnormal,

NOTE Confidence: 0.88217324

00:03:37.660 --> 00:03:38.959 what should ensue?

NOTE Confidence: 0.84738743

00:03:39.840 --> 00:03:42.246 Yeah, that's a good question,

NOTE Confidence: 0.84738743

00:03:42.246 --> 00:03:45.470 so I think the screening needs to be updated.

NOTE Confidence: 0.84738743

00:03:45.470 --> 00:03:47.576 You know most of the screening

NOTE Confidence: 0.84738743

00:03:47.576 --> 00:03:49.699 and efforts in the

NOTE Confidence: 0.84738743

00:03:49.700 --> 00:03:51.460 hepatology guidelines really focus around,

NOTE Confidence: 0.84738743

00:03:51.460 --> 00:03:53.589 which is still very important,

NOTE Confidence: 0.84738743

00:03:53.589 --> 00:03:55.434 screening people for hepatitis B

NOTE Confidence: 0.84738743

00:03:55.434 --> 00:03:57.608 and hepatitis C because we have

NOTE Confidence: 0.84738743

00:03:57.608 --> 00:03:59.198 treatment now for hepatitis C.

NOTE Confidence: 0.84738743

00:03:59.200 --> 00:04:01.312 We have treatment

NOTE Confidence: 0.84738743

00:04:01.312 --> 00:04:03.423 for not curatives, but we have

NOTE Confidence: 0.84738743

00:04:03.423 --> 00:04:05.178 suppressive treatment for hepatitis B.

00:04:06.668 --> 00:04:09.779 And the question is then who should we be

NOTE Confidence: 0.84738743

00:04:09.779 --> 00:04:11.784 screening for this NASH Cirrhosis?

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NOTE Confidence: 0.84738743

00:04:11.790 --> 00:04:14.070 You know the guidelines are not

NOTE Confidence: 0.84738743

00:04:14.070 --> 00:04:16.337 completely set the same way as

NOTE Confidence: 0.84738743

00:04:16.337 --> 00:04:18.359 they are for these other causes,

NOTE Confidence: 0.84738743

00:04:18.360 --> 00:04:20.640 but I think certainly when you

NOTE Confidence: 0.84738743

00:04:20.640 --> 00:04:23.058 see someone that's having elevated liver

NOTE Confidence: 0.84738743

00:04:23.058 --> 00:04:25.293 enzymes or potentially decreased platelets,

NOTE Confidence: 0.84738743

00:04:25.300 --> 00:04:27.120 that could be a sign.

NOTE Confidence: 0.84738743

00:04:27.120 --> 00:04:28.950 And portal hypertension,

NOTE Confidence: 0.84738743

00:04:28.950 --> 00:04:30.864 or people have had imaging for

NOTE Confidence: 0.84738743

00:04:30.864 --> 00:04:33.045 other reasons and you find changes

NOTE Confidence: 0.84738743

00:04:33.045 --> 00:04:35.150 that are consistent with cirrhosis.

NOTE Confidence: 0.84738743

00:04:35.150 --> 00:04:38.062 I think it's important to really go

NOTE Confidence: 0.84738743

00:04:38.062 --> 00:04:41.517 down the path of fully working that up.

00:04:42.238 --> 00:04:44.392 But I don't think the guidelines

NOTE Confidence: 0.84738743

00:04:44.392 --> 00:04:46.911 are really clear yet of how we

NOTE Confidence: 0.84738743

00:04:46.911 --> 00:04:48.295 screen for NASH Cirrhosis.

NOTE Confidence: 0.84738743

00:04:48.300 --> 00:04:50.466 But I think it's going to

NOTE Confidence: 0.84738743

00:04:50.466 --> 00:04:52.230 be important to

NOTE Confidence: 0.84738743

00:04:52.942 --> 00:04:54.366 give better direction to

NOTE Confidence: 0.8705947

00:04:54.370 --> 00:04:56.506 people in primary care about that.

00:04:58.496 --> 00:05:00.289 You mentioned that there's good screening

NOTE Confidence: 0.8705947

00:05:00.289 --> 00:05:02.548 for hepatitis B and C, and

NOTE Confidence: 0.8705947

00:05:02.548 --> 00:05:05.440 certainly we have vaccines for both of those,

NOTE Confidence: 0.8705947

00:05:05.440 --> 00:05:08.491 but let's talk a little bit about how we

NOTE Confidence: 0.8705947

00:05:08.491 --> 00:05:11.147 screen for those HEPAs as well.

NOTE Confidence: 0.8705947

00:05:11.150 --> 00:05:13.747 I mean, should that be something that

NOTE Confidence: 0.8705947

00:05:13.750 --> 00:05:16.487 is routine at your doctors office.

NOTE Confidence: 0.8705947

00:05:16.490 --> 00:05:18.440 How frequently should that happen?

NOTE Confidence: 0.8705947

00:05:18.440 --> 00:05:21.219 Or is that something that you only

NOTE Confidence: 0.8705947

00:05:21.219 --> 00:05:23.657 really screen for if you're at

NOTE Confidence: 0.8705947

00:05:23.657 --> 00:05:25.991 risk of getting those hepatitides

NOTE Confidence: 0.8705947

00:05:25.991 --> 00:05:28.218 and what are those risk

NOTE Confidence: 0.87121505

00:05:28.220 --> 00:05:30.170 factors?

NOTE Confidence: 0.87121505

00:05:30.170 --> 00:05:32.739 In the United States, all babies are

NOTE Confidence: 0.87121505

00:05:32.739 --> 00:05:35.647 given a series of hepatitis B vaccines,

NOTE Confidence: 0.87121505

00:05:35.650 --> 00:05:39.151 so it's really more of an issue of screening

NOTE Confidence: 0.87121505

00:05:39.151 --> 00:05:42.286 people that were not born in this country,

NOTE Confidence: 0.87121505

00:05:42.290 --> 00:05:43.586 especially Asian populations

NOTE Confidence: 0.87121505

00:05:43.586 --> 00:05:46.178 where the numbers are the highest.

NOTE Confidence: 0.87121505

00:05:46.180 --> 00:05:49.428 For hepatitis C, it's recommended

NOTE Confidence: 0.87121505

00:05:49.428 --> 00:05:52.103 that especially everyone from the baby

NOTE Confidence: 0.87121505

00:05:52.103 --> 00:05:54.917 boomer generation is screened at least once,

NOTE Confidence: 0.87121505

00:05:54.920 --> 00:05:57.902 and then certainly you know if there's

NOTE Confidence: 0.87121505

00:05:57.902 --> 00:06:01.024 any concern for a more acute liver

NOTE Confidence: 0.87121505

00:06:01.024 --> 00:06:03.219 process, that could be repeated.

NOTE Confidence: 0.87121505

00:06:03.220 --> 00:06:04.968 There are initiatives

NOTE Confidence: 0.87121505

00:06:04.968 --> 00:06:06.716 through primary care,

NOTE Confidence: 0.87121505

00:06:06.720 --> 00:06:09.336 and especially through the VA system.

NOTE Confidence: 0.87121505

00:06:09.340 --> 00:06:10.238 Unfortunately,

NOTE Confidence: 0.87121505

00:06:10.238 --> 00:06:12.932 there's a large burden of hepatitis

NOTE Confidence: 0.87121505

00:06:12.932 --> 00:06:16.309 C to really make sure that everyone

NOTE Confidence: 0.87121505

00:06:16.310 --> 00:06:19.355 is screened at least once,

NOTE Confidence: 0.87121505

00:06:19.360 --> 00:06:21.976 because we do have treatment now,

NOTE Confidence: 0.87121505

00:06:21.980 --> 00:06:24.590 which is important to know

NOTE Confidence: 0.87121505

00:06:24.590 --> 00:06:27.206 and make sure that's started in

NOTE Confidence: 0.8826564

00:06:27.210 --> 00:06:31.125 a timely fashion.

NOTE Confidence: 0.8826564

00:06:31.130 --> 00:06:33.310 And screening is a routine blood test,

00:06:36.561 --> 00:06:39.692 so if you haven't had a blood test

NOTE Confidence: 0.8826564

00:06:39.692 --> 00:06:42.908 and are in that baby Boomer generation,

NOTE Confidence: 0.8826564

00:06:42.910 --> 00:06:46.390 or you have been born in another country,

NOTE Confidence: 0.8826564

00:06:46.390 --> 00:06:47.950 it's a good idea

NOTE Confidence: 0.8826564

00:06:47.950 --> 00:06:50.730 to at least get checked and

NOTE Confidence: 0.8826564

00:06:50.730 --> 00:06:53.514 see if you have one of these two

NOTE Confidence: 0.8826564

00:06:53.514 --> 00:06:56.649 hepatitides which may put you at

00:06:56.649 --> 00:06:58.805 risk of developing liver cancer.

00:06:58.805 --> 00:07:01.290 So let's talk a little bit about

00:07:01.290 --> 00:07:03.855 that next step when you

00:07:03.855 --> 00:07:06.159 were talking about how if your

00:07:06.159 --> 00:07:08.409 liver enzymes are elevated that

00:07:08.409 --> 00:07:11.044 should really spur people on to

00:07:11.044 --> 00:07:13.546 thinking about liver cancer as a

00:07:13.546 --> 00:07:16.090 potential cause for that, so

00:07:16.090 --> 00:07:18.833 aside from an abnormal blood test of

00:07:18.833 --> 00:07:20.798 your liver enzymes being elevated,

00:07:20.800 --> 00:07:23.278 are there other symptoms that people

00:07:23.280 --> 00:07:25.296 should be looking for in terms

00:07:25.296 --> 00:07:28.107 of liver cancer or can it be

00:07:28.107 --> 00:07:29.039 completely asymptomatic?

00:07:29.810 --> 00:07:32.108 That's a good question.

00:07:32.110 --> 00:07:34.798 So what's so interesting about liver cancer

NOTE Confidence: 0.8591709

00:07:34.800 --> 00:07:37.327 is that it's so tied to Cirrhosis

NOTE Confidence: 0.8591709

00:07:37.327 --> 00:07:39.020 and underlying liver disease,

NOTE Confidence: 0.8591709

00:07:39.020 --> 00:07:41.222 and so those two things obviously

NOTE Confidence: 0.8591709

00:07:41.222 --> 00:07:43.629 are separate but also very related.

NOTE Confidence: 0.8591709

00:07:43.630 --> 00:07:46.214 So you know the symptoms of the cancer

NOTE Confidence: 0.8591709

00:07:46.214 --> 00:07:48.619 may not be traditional symptoms.

NOTE Confidence: 0.8591709

00:07:48.620 --> 00:07:50.056 People think about,

NOTE Confidence: 0.8591709

00:07:50.056 --> 00:07:53.320 we don't have a lot of nerve endings

NOTE Confidence: 0.8591709

00:07:53.320 --> 00:07:54.616 inside the liver.

NOTE Confidence: 0.8591709

00:07:54.616 --> 00:07:57.053 So often people don't feel a difference

NOTE Confidence: 0.8591709

00:07:57.053 --> 00:07:59.615 necessarily the way someone might feel

NOTE Confidence: 0.8591709

00:07:59.615 --> 00:08:02.200 a mass somewhere else in their body.

NOTE Confidence: 0.8591709

00:08:02.200 --> 00:08:04.594 And unless there's really tumor

NOTE Confidence: 0.8591709

00:08:04.594 --> 00:08:07.181 pressing on the capsule of the liver

NOTE Confidence: 0.8591709

00:08:07.181 --> 00:08:09.970 where there are a lot of nerve endings,

NOTE Confidence: 0.8591709

00:08:09.970 --> 00:08:12.190 they probably won't feel any different.

NOTE Confidence: 0.8591709

00:08:12.832 --> 00:08:15.400 So a lot of the screening really winds

NOTE Confidence: 0.8591709

00:08:15.467 --> 00:08:17.711 up being identifying the people at

NOTE Confidence: 0.8591709

00:08:17.711 --> 00:08:20.080 risk of for Cirrhosis and identifying

NOTE Confidence: 0.8591709

00:08:20.080 --> 00:08:22.486 cirrhosis and then looking at that

NOTE Confidence: 0.8591709

00:08:22.486 --> 00:08:24.463 group and screening them with

NOTE Confidence: 0.8591709

00:08:24.463 --> 00:08:26.418 imaging for liver cancer.

NOTE Confidence: 0.8591709

00:08:26.420 --> 00:08:29.204 Because we know that the cure rate and

NOTE Confidence: 0.8591709

00:08:29.204 --> 00:08:32.637 the success at treatment is better

NOTE Confidence: 0.8591709

00:08:32.640 --> 00:08:34.968 the earlier we can find it.

00:08:36.062 --> 00:08:37.882 So for patients that present with

NOTE Confidence: 0.8591709

00:08:37.882 --> 00:08:40.329 a single liver lesion and they

NOTE Confidence: 0.8591709

00:08:40.329 --> 00:08:41.973 have good liver function,

NOTE Confidence: 0.8591709

00:08:41.980 --> 00:08:44.368 they could be candidates for surgery

NOTE Confidence: 0.8591709

00:08:44.368 --> 00:08:47.418 where the tumor is able to be removed.

NOTE Confidence: 0.8591709

00:08:47.420 --> 00:08:50.078 For some patients who have still

NOTE Confidence: 0.8591709

00:08:50.078 --> 00:08:52.351 pretty limited disease and they

NOTE Confidence: 0.8591709

00:08:52.351 --> 00:08:54.476 may also have some cirrhosis,

NOTE Confidence: 0.8591709

00:08:54.480 --> 00:08:56.238 or declining liver function,

00:08:57.107 --> 00:08:59.480 and there's a lot of rules surrounding this,

NOTE Confidence: 0.8591709

00:08:59.480 --> 00:09:01.205 but they could potentially be

NOTE Confidence: 0.8591709

00:09:01.205 --> 00:09:02.930 candidates for liver transplant and that

NOTE Confidence: 0.8591709

00:09:02.989 --> 00:09:04.765 could also be a curative option,

NOTE Confidence: 0.8591709

00:09:04.770 --> 00:09:06.828 but if the cancer is found later,

00:09:07.432 --> 00:09:09.840 then we don't have those kind of options

NOTE Confidence: 0.8591709

00:09:09.902 --> 00:09:11.827 and we have to then think about

NOTE Confidence: 0.8591709

00:09:11.830 --> 00:09:12.998 other treatments.

NOTE Confidence: 0.8781914

00:09:14.110 --> 00:09:16.966 So it's important to find it

NOTE Confidence: 0.8781914

00:09:16.966 --> 00:09:20.618 at an early stage as with so many cancers.

NOTE Confidence: 0.8781914

00:09:20.620 --> 00:09:23.428 Tell us a little bit about the

NOTE Confidence: 0.8781914

00:09:23.428 --> 00:09:25.977 imaging that needs to happen.

NOTE Confidence: 0.8781914

00:09:25.980 --> 00:09:28.278 You may be feeling completely asymptomatic.

NOTE Confidence: 0.8781914

00:09:28.280 --> 00:09:30.944 You hear this on the radio and you

NOTE Confidence: 0.8781914

00:09:30.944 --> 00:09:33.813 decide to go and see your doctor

NOTE Confidence: 0.8781914

00:09:33.813 --> 00:09:35.933 because maybe you are overweight.

NOTE Confidence: 0.8781914

00:09:35.940 --> 00:09:39.153 Or maybe you have

NOTE Confidence: 0.8781914

00:09:39.153 --> 00:09:42.319 a history of alcohol in the past and

NOTE Confidence: 0.8781914

00:09:42.319 --> 00:09:45.647 and are worried about cirrhosis or maybe

NOTE Confidence: 0.8781914

00:09:45.650 --> 00:09:47.630 you've been screened for

NOTE Confidence: 0.8781914

00:09:47.630 --> 00:09:50.580 hepatitis B or C and your doctor

NOTE Confidence: 0.8781914

00:09:50.580 --> 00:09:53.256 does that screening test and says,

NOTE Confidence: 0.8781914

00:09:53.260 --> 00:09:55.678 your liver function

NOTE Confidence: 0.8781914

00:09:55.678 --> 00:09:58.339 studies are a little bit abnormal.

00:09:59.804 --> 00:10:02.404 So imaging is the next thing that you should

NOTE Confidence: 0.8781914

00:10:02.404 --> 00:10:05.365 expect in order to try to find a liver

NOTE Confidence: 0.86345017

00:10:05.370 --> 00:10:06.342 cancer early, right?

NOTE Confidence: 0.86345017

00:10:06.342 --> 00:10:09.319 So there's a few ways to image the liver,

NOTE Confidence: 0.86345017

00:10:09.320 --> 00:10:10.965 so sometimes for screening they

NOTE Confidence: 0.86345017

00:10:10.965 --> 00:10:12.610 start with just an ultrasound,

NOTE Confidence: 0.86345017

00:10:12.610 --> 00:10:14.920 which is pretty easy to get, noninvasive.

NOTE Confidence: 0.86345017

00:10:14.920 --> 00:10:16.248 There's a probe that is

NOTE Confidence: 0.86345017

00:10:16.248 --> 00:10:19.188 put over the abdomen and is kind of pushed down,

NOTE Confidence: 0.86345017

00:10:19.190 --> 00:10:20.840 and then there's

NOTE Confidence: 0.86345017

00:10:20.840 --> 00:10:22.064 images that show up,

NOTE Confidence: 0.86345017

00:10:22.064 --> 00:10:23.900 and they could often find changes

NOTE Confidence: 0.86345017

00:10:23.957 --> 00:10:25.767 of Cirrhosis and possible tumor.

NOTE Confidence: 0.86345017

00:10:25.770 --> 00:10:27.666 And when we're really

NOTE Confidence: 0.86345017

00:10:27.666 --> 00:10:29.390 concerned that there is cancer,

NOTE Confidence: 0.86345017

00:10:29.390 --> 00:10:32.260 and we best want to characterize it,

NOTE Confidence: 0.86345017

00:10:32.260 --> 00:10:34.696 the best imaging, what's considered

NOTE Confidence: 0.86345017

00:10:34.696 --> 00:10:37.415 the gold standard is really an MRI

NOTE Confidence: 0.86345017

00:10:37.415 --> 00:10:39.795 for patients that are not able to

NOTE Confidence: 0.86345017

00:10:39.876 --> 00:10:42.556 get an MRI for one reason or another,

NOTE Confidence: 0.86345017

00:10:42.560 --> 00:10:45.104 we're able to do a CAT scan with

17

NOTE Confidence: 0.86345017

00:10:45.104 --> 00:10:46.980 something called triphasic imaging,

NOTE Confidence: 0.86345017

00:10:46.980 --> 00:10:49.213 where we're able to get a very

NOTE Confidence: 0.86345017

00:10:49.213 --> 00:10:52.170 good look at the liver also so

NOTE Confidence: 0.86345017

00:10:52.170 --> 00:10:54.095 most patients once there's

NOTE Confidence: 0.86345017

00:10:54.178 --> 00:10:55.810 any real concern,

00:10:57.278 --> 00:10:59.113 they usually getting an MRI,

NOTE Confidence: 0.86345017

00:10:59.120 --> 00:11:00.230 and if not

NOTE Confidence: 0.85019046

00:11:00.230 --> 00:11:02.460 a CAT scan and so

NOTE Confidence: 0.85019046

00:11:02.460 --> 00:11:04.064 what's the next step?

NOTE Confidence: 0.85019046

00:11:04.064 --> 00:11:06.079 A biopsy now?

NOTE Confidence: 0.8700136

00:11:06.080 --> 00:11:08.887 That's an excellent question.

NOTE Confidence: 0.8700136

00:11:08.890 --> 00:11:10.900 You know, for every cancer,

NOTE Confidence: 0.8700136

00:11:10.900 --> 00:11:13.763 I think most patients would identify a

NOTE Confidence: 0.8700136

00:11:13.763 --> 00:11:16.531 biopsy as being the next step, right?

NOTE Confidence: 0.8700136

00:11:16.531 --> 00:11:19.744 So if we have imaging that's concerning,

NOTE Confidence: 0.8700136

00:11:19.744 --> 00:11:21.754 typically as oncologists,

00:11:21.760 --> 00:11:24.744 we always order a biopsy for cancers and

00:11:24.744 --> 00:11:27.790 that really gives us the definitive answer.

00:11:27.790 --> 00:11:30.870 Interestingly in the history of liver

00:11:30.870 --> 00:11:33.490 cancer imaging has been so good at

00:11:33.490 --> 00:11:35.766 looking at specific characteristics

00:11:35.766 --> 00:11:39.180 of the cancer that traditionally you

00:11:39.260 --> 00:11:41.857 have not needed a biopsy to identify

00:11:41.857 --> 00:11:45.110 each HCC or hepatocellular carcinoma,

00:11:45.110 --> 00:11:47.834 and we've been challenging that

00:11:47.834 --> 00:11:51.169 a little bit more recently because

00:11:51.170 --> 00:11:54.957 there's a lot of caveats

00:11:54.957 --> 00:11:58.419 where you could have mixed tumors

00:11:58.419 --> 00:12:02.437 of bile duct cancers with HCC.

00:12:02.440 --> 00:12:05.404 Or you know, as tumor profiling

00:12:05.404 --> 00:12:07.900 is becoming more commonly used,

00:12:07.900 --> 00:12:11.374 we really like to have tissue biopsy

NOTE Confidence: 0.8700136

00:12:11.374 --> 00:12:14.984 so that we could do these molecular tests,

NOTE Confidence: 0.8700136

00:12:14.990 --> 00:12:17.750 and so it has become more common to

NOTE Confidence: 0.8700136

00:12:17.750 --> 00:12:21.236 have a biopsy before we start treatment.

NOTE Confidence: 0.8700136

00:12:21.240 --> 00:12:24.208 But I would say historically a

NOTE Confidence: 0.8700136

00:12:24.208 --> 00:12:27.294 lot of patients wind up getting treated

NOTE Confidence: 0.8700136

00:12:27.294 --> 00:12:31.247 for liver cancer in the absence of a biopsy,

NOTE Confidence: 0.8700136

00:12:31.250 --> 00:12:33.900 which is definitely

NOTE Confidence: 0.8700136

00:12:33.900 --> 00:12:36.306 unusual as compared to other cancers.

00:12:36.710 --> 00:12:40.220 And I guess the other thing that is unique

NOTE Confidence: 0.84940416

00:12:40.220 --> 00:12:43.033 about the liver or somewhat unique is

NOTE Confidence: 0.84940416

00:12:43.033 --> 00:12:46.300 that it's a good place for cancers that

NOTE Confidence: 0.84940416

00:12:46.300 --> 00:12:49.901 start in other places to go not just as

NOTE Confidence: 0.84940416

00:12:49.901 --> 00:12:53.150 a place for cancers to arise.

NOTE Confidence: 0.84940416

00:12:53.150 --> 00:12:56.097 How can you tell the difference between

NOTE Confidence: 0.84940416

00:12:56.097 --> 00:12:58.586 a primary liver

NOTE Confidence: 0.84940416

00:12:58.586 --> 00:13:01.267 cancer that starts and grows in

NOTE Confidence: 0.84940416

00:13:01.347 --> 00:13:04.126 the liver, often in a cirrhotic liver,

NOTE Confidence: 0.84940416

00:13:04.130 --> 00:13:06.356 versus a cancer that started somewhere else,

NOTE Confidence: 0.84940416

00:13:06.360 --> 00:13:09.213 say in the colon or somewhere else and

NOTE Confidence: 0.84007126

00:13:09.220 --> 00:13:11.439 goes to the liver.

NOTE Confidence: 0.84007126

00:13:11.440 --> 00:13:13.666 And so that's always the first question.

NOTE Confidence: 0.84007126

00:13:13.670 --> 00:13:16.206 When you see a mass in the liver,

NOTE Confidence: 0.84007126

00:13:16.210 --> 00:13:18.594 did it start there or did it spread

NOTE Confidence: 0.84007126

00:13:18.594 --> 00:13:20.878 there from somewhere else so the

NOTE Confidence: 0.84007126

00:13:20.878 --> 00:13:23.526 imaging does help with that.

NOTE Confidence: 0.84007126

00:13:23.526 --> 00:13:25.752 If you do what's called this triphasic

NOTE Confidence: 0.84007126

00:13:25.752 --> 00:13:27.660 imaging, when the

NOTE Confidence: 0.84007126

00:13:27.660 --> 00:13:29.250 contrast is injected into someone,

NOTE Confidence: 0.84007126

00:13:29.250 --> 00:13:31.157 they look at certain phases.

NOTE Confidence: 0.84007126

00:13:31.157 --> 00:13:33.693 So that the liver has two blood supplies,

NOTE Confidence: 0.84007126

00:13:33.700 --> 00:13:34.444 there's a

NOTE Confidence: 0.84007126

00:13:34.444 --> 00:13:36.304 blood supply from arteries and

NOTE Confidence: 0.84007126

00:13:36.304 --> 00:13:38.480 from veins so the liver is unique in

NOTE Confidence: 0.84007126

00:13:38.480 --> 00:13:40.797 that way and there's kind of a

NOTE Confidence: 0.84007126

00:13:40.869 --> 00:13:42.693 characteristic appearance that

NOTE Confidence: 0.84007126

00:13:42.693 --> 00:13:45.125 is different between metastases

NOTE Confidence: 0.84007126

00:13:45.130 --> 00:13:46.366 and liver cancer.

NOTE Confidence: 0.84007126

00:13:46.366 --> 00:13:48.014 But that being said,

NOTE Confidence: 0.84007126

00:13:48.020 --> 00:13:51.132 sometimes the imaging is not as clear and

NOTE Confidence: 0.84007126

00:13:51.132 --> 00:13:54.209 you don't feel confident

NOTE Confidence: 0.84007126

00:13:54.210 --> 00:13:56.688 and that's really where a biopsy is

NOTE Confidence: 0.8660273

00:13:58.340 --> 00:13:59.166 helpful.

NOTE Confidence: 0.8660273

00:13:59.166 --> 00:14:02.057 And so once you get that biopsy,

NOTE Confidence: 0.8660273

00:14:02.060 --> 00:14:05.356 you can figure out is this primary cancer.

NOTE Confidence: 0.8660273

00:14:05.360 --> 00:14:07.680 Is this a secondary cancer?

NOTE Confidence: 0.8660273

00:14:07.680 --> 00:14:09.876 And hopefully get a little bit

NOTE Confidence: 0.8660273

00:14:09.876 --> 00:14:12.123 more in terms of clues that

NOTE Confidence: 0.8660273

00:14:12.123 --> 00:14:14.223 can help you to treat it.

NOTE Confidence: 0.8660273

00:14:14.230 --> 00:14:15.690 Absolutely

NOTE Confidence: 0.8694535

00:14:15.690 --> 00:14:17.814 and also what's interesting

NOTE Confidence: 0.8694535

00:14:17.814 --> 00:14:20.419 is that liver cancer can

NOTE Confidence: 0.8694535

00:14:20.420 --> 00:14:23.692 occur as a single tumor,

NOTE Confidence: 0.8694535

00:14:23.692 --> 00:14:26.595 which is what happens in most cancers, right?

NOTE Confidence: 0.8694535

00:14:26.595 --> 00:14:28.725 Most cancers start out as a

NOTE Confidence: 0.8694535

00:14:28.725 --> 00:14:30.978 single tumor and then can spread.

NOTE Confidence: 0.8694535

00:14:30.980 --> 00:14:32.800 With liver cancer

NOTE Confidence: 0.8694535

00:14:32.800 --> 00:14:33.886 sometimes it's what's

NOTE Confidence: 0.8694535

00:14:33.886 --> 00:14:35.334 called Multi focal disease,

NOTE Confidence: 0.8694535

00:14:35.340 --> 00:14:37.476 meaning that it's not really one

NOTE Confidence: 0.8694535

00:14:37.476 --> 00:14:39.799 area that spread to other areas.

NOTE Confidence: 0.8694535

00:14:39.800 --> 00:14:42.180 But that because of the cirrhosis

NOTE Confidence: 0.8694535

00:14:42.180 --> 00:14:44.572 you could think of the whole liver as

NOTE Confidence: 0.8694535

00:14:44.572 --> 00:14:46.937 being at risk for developing tumor,

NOTE Confidence: 0.8694535

00:14:46.940 --> 00:14:48.675 and so sometimes there's actually

NOTE Confidence: 0.8694535

00:14:48.675 --> 00:14:51.119 more than one area at the same

NOTE Confidence: 0.8694535

00:14:51.119 --> 00:14:53.057 time that has developed a tumor.

NOTE Confidence: 0.8694535

00:14:53.060 --> 00:14:54.080 Well, we're

NOTE Confidence: 0.87646395

00:14:54.080 --> 00:14:56.760 going to dig into all kinds of aspects

NOTE Confidence: 0.87646395

00:14:56.760 --> 00:14:59.179 in terms of the qualities of tumors

NOTE Confidence: 0.87646395

00:14:59.179 --> 00:15:01.933 in the liver and how we go about

NOTE Confidence: 0.87646395

00:15:01.933 --> 00:15:04.278 treating them right after we take a

NOTE Confidence: 0.87646395

00:15:04.280 --> 00:15:06.320 short break for a medical minute.

NOTE Confidence: 0.87646395

00:15:06.320 --> 00:15:08.462 Please stay tuned to learn more

NOTE Confidence: 0.87646395

00:15:08.462 --> 00:15:10.550 about liver cancer with my guest

NOTE Confidence: 0.87646395

00:15:10.550 --> 00:15:11.819 Doctor Stacey Stein.

NOTE Confidence: 0.8686853

00:15:12.440 --> 00:15:15.005 Support for Yale Cancer Answers

NOTE Confidence: 0.8686853

00:15:15.005 --> 00:15:17.570 comes from AstraZeneca, providing

NOTE Confidence: 0.8686853

24

00:15:17.651 --> 00:15:19.763 important treatment options for

NOTE Confidence: 0.8686853

00:15:19.763 --> 00:15:22.931 various types and stages of cancer.

NOTE Confidence: 0.8686853

00:15:22.940 --> 00:15:26.600 More information at astrazeneca-us.com.

NOTE Confidence: 0.8686853

00:15:26.600 --> 00:15:28.455 This is a medical minute

NOTE Confidence: 0.8686853

00:15:28.455 --> 00:15:30.310 about head and neck cancers,

NOTE Confidence: 0.8686853

00:15:30.310 --> 00:15:32.225 although the percentage of oral

NOTE Confidence: 0.8686853

00:15:32.225 --> 00:15:34.560 and head and neck cancer patients

NOTE Confidence: 0.8686853

00:15:34.560 --> 00:15:37.003 in the United States is only about

NOTE Confidence: 0.8686853

00:15:37.003 --> 00:15:38.952 5% of all diagnosed cancers,

NOTE Confidence: 0.8686853

00:15:38.952 --> 00:15:40.942 there are challenging side effects

NOTE Confidence: 0.8686853

00:15:40.942 --> 00:15:42.718 associated with these types of

NOTE Confidence: 0.8686853

00:15:42.718 --> 00:15:44.034 cancer and their treatment.

NOTE Confidence: 0.8686853

00:15:44.040 --> 00:15:45.656 Clinical trials are currently

NOTE Confidence: 0.8686853

00:15:45.656 --> 00:15:47.676 underway to test innovative new

NOTE Confidence: 0.8686853

00:15:47.676 --> 00:15:49.600 treatments for head and neck cancers,

NOTE Confidence: 0.8686853

00:15:49.600 --> 00:15:51.610 and in many cases less radical

NOTE Confidence: 0.8686853

00:15:51.610 --> 00:15:54.050 surgeries are able to preserve nerves,

NOTE Confidence: 0.8686853

00:15:54.050 --> 00:15:56.276 arteries and muscles in the neck,

NOTE Confidence: 0.8686853

00:15:56.280 --> 00:15:58.200 enabling patients to move, speak,

NOTE Confidence: 0.8686853

00:15:58.200 --> 00:16:01.176 breathe, and eat normally after surgery.

NOTE Confidence: 0.8686853

00:16:01.180 --> 00:16:03.164 More information is available

NOTE Confidence: 0.8686853

00:16:03.164 --> 00:16:04.156 at yalecancercenter.org.

NOTE Confidence: 0.8686853

00:16:04.160 --> 00:16:07.148 You're listening to Connecticut public radio.

NOTE Confidence: 0.8621683

00:16:08.580 --> 00:16:10.860 Welcome back to Yale Cancer Answers.

NOTE Confidence: 0.8621683

00:16:10.860 --> 00:16:12.954 This is doctor Anees Chagpar

NOTE Confidence: 0.8621683

00:16:12.954 --> 00:16:15.250 and I'm joined tonight by

NOTE Confidence: 0.8621683

00:16:15.250 --> 00:16:17.315 my guest doctor Stacy Stein.

NOTE Confidence: 0.8621683

00:16:17.320 --> 00:16:19.220 We're talking about GI cancers

NOTE Confidence: 0.8621683

00:16:19.220 --> 00:16:20.740 in particular liver cancer,

NOTE Confidence: 0.8621683

00:16:20.740 --> 00:16:23.218 and right before the break we talked

NOTE Confidence: 0.8621683

00:16:23.218 --> 00:16:26.129 a little bit about all of the risk

NOTE Confidence: 0.8621683

26

00:16:26.129 --> 00:16:29.253 factors that can really put you at risk

NOTE Confidence: 0.8621683

00:16:29.253 --> 00:16:31.378 of developing primary liver cancer,

NOTE Confidence: 0.8621683

00:16:31.380 --> 00:16:33.660 which can be an isolated event,

NOTE Confidence: 0.8621683

00:16:33.660 --> 00:16:36.738 or it could be multi focal. So Stacy,

NOTE Confidence: 0.8621683

00:16:36.738 --> 00:16:39.930 when we talk about liver cancers,

NOTE Confidence: 0.8621683

00:16:39.930 --> 00:16:42.018 how often are these

NOTE Confidence: 0.8621683

00:16:42.020 --> 00:16:44.396 found as a single spot in the liver

NOTE Confidence: 0.8621683

00:16:44.396 --> 00:16:46.189 versus more extensive disease?

NOTE Confidence: 0.8621683

00:16:46.190 --> 00:16:47.240 That's a

NOTE Confidence: 0.8849255

00:16:47.240 --> 00:16:49.196 good question, so I think it

NOTE Confidence: 0.8849255

00:16:49.196 --> 00:16:51.298 really depends on which

NOTE Confidence: 0.8849255

00:16:51.298 --> 00:16:53.494 group of people you're looking at.

NOTE Confidence: 0.8849255

00:16:53.500 --> 00:16:55.438 For patients who have known that

NOTE Confidence: 0.8849255

00:16:55.438 --> 00:16:57.166 they have underlying risk factors

NOTE Confidence: 0.8849255

00:16:57.166 --> 00:16:59.066 and they've been getting screens,

NOTE Confidence: 0.8849255

00:16:59.070 --> 00:17:01.002 they are much more likely to

NOTE Confidence: 0.8849255

00:17:01.002 --> 00:17:02.900 be found with early disease.

NOTE Confidence: 0.8849255

00:17:02.900 --> 00:17:04.640 But I would say, unfortunately, I see patients all the time who

00:17:07.493 --> 00:17:09.959 present with much more advanced disease.

NOTE Confidence: 0.8849255

00:17:09.960 --> 00:17:12.150 Because you they either

NOTE Confidence: 0.8849255

00:17:12.150 --> 00:17:14.970 were not being followed by anyone,

NOTE Confidence: 0.8849255

00:17:14.970 --> 00:17:17.490 or they didn't realize that they

NOTE Confidence: 0.8849255

00:17:17.490 --> 00:17:20.266 had cirrhosis and so they could

NOTE Confidence: 0.8849255

00:17:20.266 --> 00:17:21.787 present with disease

NOTE Confidence: 0.8849255

00:17:21.790 --> 00:17:23.610 that's already

NOTE Confidence: 0.8849255

00:17:23.610 --> 00:17:26.340 not eligible for surgery or transplant.

NOTE Confidence: 0.8849255

00:17:26.340 --> 00:17:29.070 The disease may have metastasized already,

NOTE Confidence: 0.8849255

00:17:29.070 --> 00:17:31.786 and so we certainly see

NOTE Confidence: 0.8849255

00:17:31.786 --> 00:17:34.598 people that have either presented with

NOTE Confidence: 0.8849255

00:17:34.598 --> 00:17:37.718 disease very late or after treatment.

NOTE Confidence: 0.8849255

00:17:37.720 --> 00:17:40.606 For early disease, the disease has

NOTE Confidence: 0.8849255

00:17:40.610 --> 00:17:41.798 progressed and

NOTE Confidence: 0.85350454

00:17:41.800 --> 00:17:44.565 as we talked about before the break,

NOTE Confidence: 0.85350454

00:17:44.570 --> 00:17:46.946 I mean certainly it's always better

NOTE Confidence: 0.85350454

00:17:46.950 --> 00:17:49.386 if you can find cancer early

NOTE Confidence: 0.85350454

00:17:49.386 --> 00:17:51.931 when it's most treatable and when

NOTE Confidence: 0.85350454

00:17:51.931 --> 00:17:54.457 either surgery or local

NOTE Confidence: 0.85350454

00:17:54.457 --> 00:17:57.101 therapies are an option to get

NOTE Confidence: 0.85350454

00:17:57.101 --> 00:17:59.722 rid of the primary cancer.

NOTE Confidence: 0.85350454

00:17:59.722 --> 00:18:02.398 But when that cancer is locally

NOTE Confidence: 0.85350454

00:18:02.398 --> 00:18:05.255 advanced or even metastatic when

NOTE Confidence: 0.85350454

00:18:05.255 --> 00:18:08.075 it spread and those local therapies

NOTE Confidence: 0.85350454

00:18:08.167 --> 00:18:10.147 are no longer an option,

NOTE Confidence: 0.85350454

00:18:10.150 --> 00:18:13.166 we still have options to treat

NOTE Confidence: 0.8718654

00:18:13.170 --> 00:18:14.352 these patients.

NOTE Confidence: 0.8718654

00:18:14.352 --> 00:18:16.322 And that's really the area

NOTE Confidence: 0.8718654

00:18:16.322 --> 00:18:18.468 that I've been most focused in.

NOTE Confidence: 0.8718654

00:18:18.470 --> 00:18:20.766 I'm very lucky at Yale

NOTE Confidence: 0.8718654

00:18:20.766 --> 00:18:22.266 to have a fantastic multidisciplinary

NOTE Confidence: 0.8718654

00:18:22.266 --> 00:18:25.644 liver team and I just want

NOTE Confidence: 0.8718654

00:18:25.644 --> 00:18:27.912 to mention we actually meet weekly.

NOTE Confidence: 0.8718654

00:18:27.920 --> 00:18:30.266 We have our own separate conference

NOTE Confidence: 0.8718654

00:18:30.266 --> 00:18:32.608 just for liver cancer and there's

NOTE Confidence: 0.8718654

00:18:32.608 --> 00:18:34.720 such a great group of people.

NOTE Confidence: 0.8718654

00:18:34.720 --> 00:18:36.982 We work with the surgeons, the

NOTE Confidence: 0.8718654

00:18:36.982 --> 00:18:38.558 transplant surgeons, the hepatologist,

NOTE Confidence: 0.8718654

00:18:38.558 --> 00:18:39.785 the Interventional radiologist.

NOTE Confidence: 0.8718654

00:18:44.170 --> 00:18:45.180 There's Oncologists.

NOTE Confidence: 0.8718654

00:18:45.180 --> 00:18:48.809 We really have a great group that

NOTE Confidence: 0.8718654

00:18:48.809 --> 00:18:51.869 focuses on all aspects of treatment.

NOTE Confidence: 0.8718654

00:18:51.870 --> 00:18:55.174 My focus as an oncologist

NOTE Confidence: 0.8718654

00:18:55.174 --> 00:18:57.812 is really more in patients

NOTE Confidence: 0.8718654

00:18:57.812 --> 00:19:00.060 who are not candidates

NOTE Confidence: 0.8718654

00:19:00.060 --> 00:19:03.126 for these curative intent

NOTE Confidence: 0.8718654

00:19:03.130 --> 00:19:07.010 treatments like transplant or surgery.

NOTE Confidence: 0.8718654

00:19:07.010 --> 00:19:09.254 For patients with local disease where

NOTE Confidence: 0.8718654

00:19:09.254 --> 00:19:11.770 the disease is still confined to the

NOTE Confidence: 0.8718654

00:19:11.770 --> 00:19:14.524 liver and there's not more than a few

NOTE Confidence: 0.8718654

00:19:14.524 --> 00:19:16.408 separate tumors that Interventional

NOTE Confidence: 0.8718654

00:19:16.408 --> 00:19:18.763 radiologists have really played a

NOTE Confidence: 0.8718654

00:19:18.770 --> 00:19:21.116 large role in treating those patients,

NOTE Confidence: 0.8718654

00:19:21.120 --> 00:19:23.773 and they treat with a wide variety

NOTE Confidence: 0.8718654

00:19:23.773 --> 00:19:26.180 of modalities where they could apply

NOTE Confidence: 0.8718654

00:19:26.180 --> 00:19:28.568 some chemotherapy or heat or cold,

NOTE Confidence: 0.8718654

00:19:28.570 --> 00:19:31.307 or they do ablation techniques,

NOTE Confidence: 0.8718654

00:19:31.310 --> 00:19:34.398 and then at some point either

NOTE Confidence: 0.8718654

00:19:34.398 --> 00:19:37.320 because someone is developing more tumors or

NOTE Confidence: 0.8718654

00:19:37.320 --> 00:19:39.030 if there's any metastatic disease,

NOTE Confidence: 0.8718654

00:19:39.030 --> 00:19:41.076 meaning tumor has left the liver,

NOTE Confidence: 0.8718654

00:19:41.080 --> 00:19:43.132 then we really focus on what

NOTE Confidence: 0.8718654

00:19:43.132 --> 00:19:44.500 we call systemic therapies.

NOTE Confidence: 0.8718654

00:19:44.500 --> 00:19:46.522 So either the treatment is a

NOTE Confidence: 0.8718654

00:19:46.522 --> 00:19:48.260 pill form or intravenous form,

NOTE Confidence: 0.8718654

00:19:48.260 --> 00:19:50.479 but then the drugs are

NOTE Confidence: 0.8718654

00:19:50.479 --> 00:19:53.050 absorbed in the body and go everywhere,

NOTE Confidence: 0.8718654

00:19:53.050 --> 00:19:56.650 and I have to say over the time that

NOTE Confidence: 0.8718654

00:19:56.650 --> 00:20:00.463 I've been at Yale, in the last 10 years,

NOTE Confidence: 0.8718654

00:20:00.470 --> 00:20:02.455 we have made tremendous strides

NOTE Confidence: 0.8718654

00:20:02.455 --> 00:20:05.436 in the last few years and having

NOTE Confidence: 0.8718654

00:20:05.436 --> 00:20:07.721 more treatment options that are

NOTE Confidence: 0.8718654

00:20:07.721 --> 00:20:10.150 more effective for liver cancer,

NOTE Confidence: 0.8718654

00:20:10.150 --> 00:20:12.350 so that's been really exciting.

NOTE Confidence: 0.85544723

00:20:12.910 --> 00:20:15.507 So tell us more about those developments.

NOTE Confidence: 0.85544723

00:20:15.510 --> 00:20:17.981 I mean for many people the concept

NOTE Confidence: 0.85544723

00:20:17.981 --> 00:20:19.959 of chemotherapy is really scary,

NOTE Confidence: 0.85544723

00:20:19.960 --> 00:20:21.816 but you mentioned that some

NOTE Confidence: 0.85544723

00:20:21.816 --> 00:20:23.670 of these therapies that you

NOTE Confidence: 0.85544723

00:20:23.670 --> 00:20:25.520 give actually can be oral.

00:20:27.380 --> 00:20:30.103 The first drug that actually showed a benefit

NOTE Confidence: 0.85544723

00:20:30.103 --> 00:20:32.713 in helping people live longer with liver

NOTE Confidence: 0.85544723

00:20:32.713 --> 00:20:35.170 cancer is a drug called sorafenib

NOTE Confidence: 0.85544723

00:20:35.170 --> 00:20:38.138 and that's actually a pill form of treatment.

NOTE Confidence: 0.85544723

00:20:38.140 --> 00:20:39.990 It's not really traditional chemotherapy,

NOTE Confidence: 0.85544723

00:20:39.990 --> 00:20:42.120 we call them

NOTE Confidence: 0.85544723

00:20:42.120 --> 00:20:44.260 tyrosine kinase inhibitors.

NOTE Confidence: 0.85544723

00:20:44.260 --> 00:20:46.160 So it's more targeted therapy.

NOTE Confidence: 0.85544723

00:20:46.160 --> 00:20:48.050 While sorafenib had some benefit,

NOTE Confidence: 0.85544723

00:20:48.050 --> 00:20:50.696 we all recognize that it wasn't enough.

NOTE Confidence: 0.85544723

00:20:50.700 --> 00:20:52.590 And then if patients didn't

NOTE Confidence: 0.85544723

00:20:52.590 --> 00:20:54.102 really tolerate it,

NOTE Confidence: 0.85544723

00:20:54.110 --> 00:20:56.770 than their cancer started to grow again.

NOTE Confidence: 0.85544723

00:20:56.770 --> 00:20:58.822 You know there were many years

NOTE Confidence: 0.85544723

00:20:58.822 --> 00:21:00.694 where we really didn't have

NOTE Confidence: 0.85544723

00:21:00.694 --> 00:21:02.450 other good treatment options.

NOTE Confidence: 0.85544723

00:21:02.450 --> 00:21:04.842 And then in the last few years there's

NOTE Confidence: 0.85544723

00:21:04.842 --> 00:21:07.621 been a lot of success in both finding

NOTE Confidence: 0.85544723

00:21:07.621 --> 00:21:10.043 more of these tyrosine kinase inhibitors

NOTE Confidence: 0.85544723

00:21:10.043 --> 00:21:12.403 that are more effective potentially.

00:21:16.530 --> 00:21:19.330 and then the other area that's been

NOTE Confidence: 0.85544723

00:21:19.330 --> 00:21:21.748 really exciting has been the use

NOTE Confidence: 0.85544723

00:21:21.748 --> 00:21:24.028 of immune therapy in liver cancer,

NOTE Confidence: 0.85544723

00:21:24.030 --> 00:21:25.218 so I want

NOTE Confidence: 0.8481173

00:21:25.220 --> 00:21:27.628 to dig into both of those kind

NOTE Confidence: 0.8481173

00:21:27.628 --> 00:21:30.348 of arms of the equation first.

NOTE Confidence: 0.8481173

00:21:30.350 --> 00:21:33.722 You know when we talk about

NOTE Confidence: 0.8481173

00:21:33.722 --> 00:21:35.408 tyrosine kinase inhibitors

NOTE Confidence: 0.8481173

00:21:35.410 --> 00:21:37.380 sometimes that's very similar to

NOTE Confidence: 0.8481173

00:21:37.380 --> 00:21:40.449 what we talk about in breast cancer.

NOTE Confidence: 0.8481173

00:21:40.450 --> 00:21:42.560 For example, many of our

NOTE Confidence: 0.8481173

00:21:42.560 --> 00:21:45.070 listeners may know about HER2

NOTE Confidence: 0.8481173

00:21:45.070 --> 00:21:47.947 and the fact that we can have

NOTE Confidence: 0.8481173

00:21:47.947 --> 00:21:50.528 a targeted agent against HER2

NOTE Confidence: 0.8481173

00:21:50.530 --> 00:21:53.023 that can be very effective.

NOTE Confidence: 0.8481173

00:21:53.023 --> 00:21:55.078 So with these tyrosine kinase

NOTE Confidence: 0.8481173

00:21:55.078 --> 00:21:56.830 inhibitors in liver cancer,

NOTE Confidence: 0.8481173

00:21:56.830 --> 00:21:58.510 are there particular receptors

NOTE Confidence: 0.8481173

00:21:58.510 --> 00:22:00.190 that you're going after?

NOTE Confidence: 0.8481173

00:22:00.190 --> 00:22:02.969 So are there markers that you can

NOTE Confidence: 0.8481173

00:22:02.969 --> 00:22:06.420 look at a cancer and say, ah, ha,

NOTE Confidence: 0.8481173

00:22:06.420 --> 00:22:07.960 Mrs Jones

NOTE Confidence: 0.8481173

00:22:07.960 --> 00:22:09.585 has this particular receptor and

35

NOTE Confidence: 0.8481173

00:22:09.585 --> 00:22:11.980 I have a drug that can target.

NOTE Confidence: 0.8481173

00:22:11.980 --> 00:22:13.660 Yeah, that's a really

NOTE Confidence: 0.8812151

00:22:13.660 --> 00:22:15.910 good question and there's a

NOTE Confidence: 0.8812151

00:22:15.910 --> 00:22:18.364 few things that you asked

NOTE Confidence: 0.8812151

00:22:18.364 --> 00:22:20.690 that I want to address and one is

NOTE Confidence: 0.8812151

00:22:20.690 --> 00:22:22.370 do we have a biomarker?

NOTE Confidence: 0.8812151

00:22:22.370 --> 00:22:24.575 Which really means is there some way

NOTE Confidence: 0.8812151

00:22:24.575 --> 00:22:26.631 from the patient that I'm treating

NOTE Confidence: 0.8812151

00:22:26.631 --> 00:22:29.081 either from their blood work or something

NOTE Confidence: 0.8812151

00:22:29.149 --> 00:22:31.438 from there from their biopsy that I

NOTE Confidence: 0.8812151

00:22:31.438 --> 00:22:35.020 could identify that would predict

NOTE Confidence: 0.8812151

00:22:35.020 --> 00:22:36.412 whether they would respond

NOTE Confidence: 0.8812151

00:22:36.412 --> 00:22:37.804 to treatment or not,

NOTE Confidence: 0.8812151

00:22:37.810 --> 00:22:40.050 and unfortunately the answer is we really

NOTE Confidence: 0.8812151

00:22:40.050 --> 00:22:42.698 don't have a biomarker for liver cancer

NOTE Confidence: 0.8812151

00:22:42.700 --> 00:22:44.788 the way that we could test

NOTE Confidence: 0.8812151

00:22:44.790 --> 00:22:47.574 HER2 expression in breast cancer,

NOTE Confidence: 0.8812151

00:22:47.580 --> 00:22:49.290 or other cancers and say this

NOTE Confidence: 0.8812151

00:22:49.290 --> 00:22:51.420 drug is more likely to work.

NOTE Confidence: 0.8812151

00:22:51.420 --> 00:22:53.508 We do follow something

NOTE Confidence: 0.8812151

00:22:53.508 --> 00:22:54.552 called the AFP.

NOTE Confidence: 0.8812151

00:22:54.560 --> 00:22:56.310 The Alpha fetal protein and

NOTE Confidence: 0.8812151

00:22:56.310 --> 00:22:58.464 in about 80% of liver cancers

NOTE Confidence: 0.8812151

00:22:58.464 --> 00:23:01.040 that protein is made and so the

NOTE Confidence: 0.8812151

00:23:01.119 --> 00:23:03.891 value of it and it going up or down

NOTE Confidence: 0.8812151

00:23:03.891 --> 00:23:06.076 gives you a sense of response,

NOTE Confidence: 0.8812151

00:23:06.080 --> 00:23:08.649 but it doesn't actually predict what drug

NOTE Confidence: 0.8812151

00:23:08.650 --> 00:23:10.729 he would respond to if there is a

NOTE Confidence: 0.8812151

00:23:10.729 --> 00:23:13.002 real need for finding a biomarker

NOTE Confidence: 0.8812151

00:23:13.002 --> 00:23:15.630 that would predict response to any

NOTE Confidence: 0.8812151

00:23:15.630 --> 00:23:17.972 particular drug, but the truth is,

NOTE Confidence: 0.8812151

00:23:17.972 --> 00:23:19.464 we don't have one,

NOTE Confidence: 0.8812151

00:23:19.470 --> 00:23:22.172 and so we really are giving these

NOTE Confidence: 0.8812151

00:23:22.172 --> 00:23:24.687 drugs without really knowing who it is

NOTE Confidence: 0.8812151

00:23:24.690 --> 00:23:27.294 that is going to respond or not,

NOTE Confidence: 0.8812151

00:23:27.300 --> 00:23:29.170 and we're trying

NOTE Confidence: 0.8812151

00:23:29.170 --> 00:23:31.030 sequences of drugs.

NOTE Confidence: 0.8812151

00:23:31.030 --> 00:23:33.634 I wish we did have a biomarker.

NOTE Confidence: 0.8812151

00:23:33.640 --> 00:23:35.878 There's a lot of interest in

NOTE Confidence: 0.8812151

00:23:36.644 --> 00:23:39.318 developing one when you ask what

NOTE Confidence: 0.8812151

00:23:39.318 --> 00:23:41.608 target are we hitting with

NOTE Confidence: 0.8812151

00:23:41.610 --> 00:23:43.390 this tyrosine kinase approach,

NOTE Confidence: 0.8812151

00:23:43.390 --> 00:23:45.532 the truth is these are what we

NOTE Confidence: 0.8812151

00:23:45.532 --> 00:23:47.660 call dirty tyrosine kinases,

NOTE Confidence: 0.8812151

00:23:47.660 --> 00:23:50.145 meaning they don't target just one protein,

NOTE Confidence: 0.8812151

00:23:50.150 --> 00:23:52.796 so one of the proteins they target

NOTE Confidence: 0.8812151

00:23:52.796 --> 00:23:54.429 is something called veg F.

00:23:54.430 --> 00:23:56.006 The vascular endothelial growth

00:23:56.006 --> 00:23:58.370 factor which is involved in blood

00:23:58.437 --> 00:24:00.377 vessel formation for the tumors.

00:24:00.380 --> 00:24:02.246 We do know that that's an

00:24:02.246 --> 00:24:03.970 important target for liver cancer,

00:24:03.970 --> 00:24:06.168 but it's not the only one that's

00:24:06.168 --> 00:24:07.550 targeted by these drugs,

00:24:07.550 --> 00:24:09.600 so there's there's other pathways

00:24:09.600 --> 00:24:12.083 that are being targeted and they

00:24:12.083 --> 00:24:14.219 probably have some role in the

00:24:14.219 --> 00:24:16.039 benefit of these drugs too.

00:24:16.040 --> 00:24:17.810 And you know, there's still

00:24:17.810 --> 00:24:20.610 a lot more to really understand

00:24:20.610 --> 00:24:23.099 about how these drugs work in this

00:24:23.100 --> 00:24:25.218 cancer.

NOTE Confidence: 0.8564623

00:24:25.220 --> 00:24:27.684 It would be nicer if you could

NOTE Confidence: 0.8564623

00:24:27.684 --> 00:24:29.772 biopsy a tumor and say,

NOTE Confidence: 0.8564623

00:24:29.772 --> 00:24:32.348 this tumor has a very high veg F

NOTE Confidence: 0.8564623

00:24:32.348 --> 00:24:34.945 level and you have a specific drug

NOTE Confidence: 0.8564623

00:24:34.945 --> 00:24:37.219 that would target that and Voila,

NOTE Confidence: 0.8564623

00:24:37.220 --> 00:24:38.692 the cancer magically disappears,

NOTE Confidence: 0.8564623

00:24:38.692 --> 00:24:42.158 but I guess we're a bit far off from that.

00:24:43.220 --> 00:24:44.985 And what's interesting too is

NOTE Confidence: 0.8564623

00:24:44.985 --> 00:24:46.728 that in immune therapy

NOTE Confidence: 0.8564623

00:24:46.728 --> 00:24:48.368 there's been so many recent

NOTE Confidence: 0.8564623

00:24:48.368 --> 00:24:50.145 studies looking at the role

NOTE Confidence: 0.8564623

00:24:50.145 --> 00:24:51.749 of different immune therapy,

NOTE Confidence: 0.8564623

00:24:51.750 --> 00:24:52.998 drugs, and liver cancer,

NOTE Confidence: 0.8564623

00:24:52.998 --> 00:24:55.909 and even then for a lot of

NOTE Confidence: 0.8564623

00:24:55.909 --> 00:24:57.529 cancers you could check something

NOTE Confidence: 0.8564623

00:24:57.529 --> 00:24:59.410 called the PDL one expression,

00:24:59.410 --> 00:25:01.408 and by looking at the number

00:25:01.408 --> 00:25:02.740 of immune cells infiltrating,

00:25:02.740 --> 00:25:06.716 in the tumor on the biopsy,

00:25:06.720 --> 00:25:09.499 you could have some kind of

00:25:09.499 --> 00:25:12.901 sense of prediction of how likely it is

00:25:12.901 --> 00:25:15.031 someone would respond to immunotherapy,

00:25:15.040 --> 00:25:17.536 but even that for liver cancer

00:25:17.536 --> 00:25:19.200 has been very unreliable.

00:25:19.200 --> 00:25:21.030 The expression of that protein

00:25:21.030 --> 00:25:23.450 does not predict who will respond

00:25:23.450 --> 00:25:25.019 to immunotherapy either.

00:25:25.020 --> 00:25:27.100 Interesting that really is

00:25:27.100 --> 00:25:29.600 unique, I think

00:25:29.600 --> 00:25:33.132 for liver cancer, because I know in

00:25:33.132 --> 00:25:36.403 other cancers we actually do look at

00:25:36.403 --> 00:25:39.706 that and say, if we see

NOTE Confidence: 0.87378585

00:25:39.710 --> 00:25:42.638 PD L1 expression then we know that

NOTE Confidence: 0.87378585

00:25:42.638 --> 00:25:45.200 immunotherapy is going to be more effective.

NOTE Confidence: 0.87378585

00:25:45.200 --> 00:25:47.396 So how do you decide who

NOTE Confidence: 0.87378585

00:25:47.396 --> 00:25:48.860 to give immunotherapy to?

NOTE Confidence: 0.87378585

00:25:48.860 --> 00:25:51.788 And who to treat with a TKI or a chemotherapy?

00:25:52.888 --> 00:25:53.620 Yeah, that's

NOTE Confidence: 0.84691036

00:25:53.620 --> 00:25:55.810 a great question, and

NOTE Confidence: 0.84691036

00:25:55.810 --> 00:25:57.274 until very recently the

NOTE Confidence: 0.84691036

00:25:57.274 --> 00:25:59.104 treatment has been a TKI

NOTE Confidence: 0.84691036

00:25:59.110 --> 00:26:01.300 first and then immune therapy,

NOTE Confidence: 0.84691036

00:26:01.300 --> 00:26:04.080 but I want to tell you about one of the

NOTE Confidence: 0.84691036

00:26:04.159 --> 00:26:07.159 newest combinations that's been looked at,

NOTE Confidence: 0.84691036

00:26:07.160 --> 00:26:09.407 which is a combination of an immune

NOTE Confidence: 0.84691036

00:26:09.407 --> 00:26:11.190 therapy drug called atezolizumab.

NOTE Confidence: 0.84691036

00:26:11.190 --> 00:26:14.158 So that's what we call a PDL1

NOTE Confidence: 0.84691036

42

00:26:14.160 --> 00:26:16.230 antibody and it targets the immune system

NOTE Confidence: 0.84691036

00:26:16.230 --> 00:26:18.949 and then it was given in combination

NOTE Confidence: 0.84691036

00:26:18.949 --> 00:26:21.481 with bevacizumab which is an antibody

NOTE Confidence: 0.84691036

00:26:21.481 --> 00:26:23.817 against veg F which I had just

NOTE Confidence: 0.84691036

00:26:23.817 --> 00:26:25.423 mentioned before and that combination

NOTE Confidence: 0.84691036

00:26:25.423 --> 00:26:27.661 and we had participated

NOTE Confidence: 0.84691036

00:26:27.661 --> 00:26:30.128 at Yale in the phase one study

NOTE Confidence: 0.84691036

00:26:30.130 --> 00:26:33.650 looking at this and I will tell you that out

NOTE Confidence: 0.84691036

00:26:33.735 --> 00:26:37.020 of the patients that I had on that study,

NOTE Confidence: 0.84691036

00:26:37.020 --> 00:26:40.068 I actually have two patients who had a

NOTE Confidence: 0.84691036

00:26:40.068 --> 00:26:42.467 complete response to treatment which was

NOTE Confidence: 0.84691036

00:26:42.470 --> 00:26:43.598 amazing to me,

NOTE Confidence: 0.84691036

00:26:43.598 --> 00:26:46.656 and they're both still doing very well with

NOTE Confidence: 0.84691036

00:26:46.656 --> 00:26:49.788 no disease that could be seen on their MRIs

NOTE Confidence: 0.84691036

00:26:49.790 --> 00:26:51.986 which is something that I had

NOTE Confidence: 0.84691036

00:26:51.986 --> 00:26:53.450 never had happen before,

NOTE Confidence: 0.84691036

00:26:53.450 --> 00:26:55.879 so that was really exciting and the

NOTE Confidence: 0.84691036

00:26:55.879 --> 00:26:58.384 phase one study was positive and based

NOTE Confidence: 0.84691036

00:26:58.384 --> 00:27:00.931 on those results there was a large

NOTE Confidence: 0.84691036

00:27:00.931 --> 00:27:03.647 phase three study so they

NOTE Confidence: 0.84691036

00:27:03.647 --> 00:27:06.260 compared this combination back to sorafenib,

NOTE Confidence: 0.84691036

00:27:06.260 --> 00:27:08.090 which had been often given,

00:27:08.824 --> 00:27:10.659 as a first treatment and

NOTE Confidence: 0.84691036

00:27:10.659 --> 00:27:12.559 they showed that there was

NOTE Confidence: 0.84691036

00:27:12.560 --> 00:27:15.182 a benefit of giving this combination

NOTE Confidence: 0.84691036

00:27:15.182 --> 00:27:17.996 immunotherapy and so that just got approved

NOTE Confidence: 0.84691036

00:27:17.996 --> 00:27:20.670 by the FDA a couple of months ago.

NOTE Confidence: 0.84691036

00:27:20.670 --> 00:27:23.323 And for patients who are good candidates

NOTE Confidence: 0.84691036

00:27:23.323 --> 00:27:26.647 for that which some people may not be a

NOTE Confidence: 0.84691036

00:27:26.647 --> 00:27:29.159 good candidate for getting that treatment,

NOTE Confidence: 0.84691036

00:27:29.160 --> 00:27:31.260 either because of the immune therapy

NOTE Confidence: 0.84691036

00:27:31.260 --> 00:27:34.179 part or thebevacizumab part,

NOTE Confidence: 0.84691036

00:27:34.180 --> 00:27:36.202 that's become the new standard of

NOTE Confidence: 0.84691036

00:27:36.202 --> 00:27:38.420 care to give this combination.

NOTE Confidence: 0.84691036

00:27:38.420 --> 00:27:40.350 We see higher response rates.

NOTE Confidence: 0.84691036

00:27:40.350 --> 00:27:42.828 We see patients have longer responses

NOTE Confidence: 0.84691036

00:27:42.828 --> 00:27:43.654 to treatment.

00:27:44.782 --> 00:27:48.175 We don't have a biomarker to predict who is

NOTE Confidence: 0.84691036

00:27:48.175 --> 00:27:50.991 going to do the best with that combination,

NOTE Confidence: 0.84691036

00:27:51.000 --> 00:27:52.408 but this is really

NOTE Confidence: 0.84691036

00:27:52.408 --> 00:27:55.769 a big change in our practice,

NOTE Confidence: 0.84691036

00:27:55.770 --> 00:27:58.162 just in the last few months to think

NOTE Confidence: 0.84691036

00:27:58.162 --> 00:28:00.320 about giving this type of combination

NOTE Confidence: 0.84691036

00:28:00.320 --> 00:28:02.185 to patients before starting with

NOTE Confidence: 0.84691036

00:28:02.185 --> 00:28:04.210 the tyrosine kinase inhibitor.

NOTE Confidence: 0.84691036

00:28:04.210 --> 00:28:05.311 So you know,

NOTE Confidence: 0.84691036

00:28:05.311 --> 00:28:07.513 we think carefully about each patient,

NOTE Confidence: 0.84691036

00:28:07.520 --> 00:28:09.686 and certainly there's other

45

NOTE Confidence: 0.84691036

00:28:09.686 --> 00:28:12.291 immune therapy drugs to give and there

NOTE Confidence: 0.84691036

00:28:12.291 --> 00:28:14.860 still are tyrosine kinase inhibitors to give,

00:28:15.502 --> 00:28:19.354 but the discussion now about how to

NOTE Confidence: 0.84691036

00:28:19.354 --> 00:28:22.530 sequence these treatments has become

NOTE Confidence: 0.84691036

00:28:22.530 --> 00:28:24.918 much more relevant.

NOTE Confidence: 0.84691036

00:28:24.920 --> 00:28:26.772 There's other

NOTE Confidence: 0.84691036

00:28:26.772 --> 00:28:28.624 studies looking at combination

NOTE Confidence: 0.84691036

00:28:28.624 --> 00:28:30.548 therapies that the full data

NOTE Confidence: 0.84691036

00:28:30.548 --> 00:28:32.108 has not been presented yet.

NOTE Confidence: 0.84691036

00:28:32.110 --> 00:28:34.100 It hasn't been published yet,

NOTE Confidence: 0.84691036

00:28:34.100 --> 00:28:36.470 but there's other studies that are

NOTE Confidence: 0.84691036

00:28:36.470 --> 00:28:38.907 showing more positive data than just

NOTE Confidence: 0.84691036

00:28:38.907 --> 00:28:41.672 giving a tyrosine kinase inhibitor by itself,

NOTE Confidence: 0.84691036

00:28:41.680 --> 00:28:44.480 and so it's just been really exciting.

NOTE Confidence: 0.84691036

00:28:44.480 --> 00:28:44.870 Doctor

NOTE Confidence: 0.8795743

00:28:44.870 --> 00:28:47.420 Stacy Stein is an associate professor

NOTE Confidence: 0.8795743

00:28:47.420 --> 00:28:50.029 of internal medicine in medical oncology

NOTE Confidence: 0.8795743

00:28:50.029 --> 00:28:52.537 at the Yale School of Medicine.

NOTE Confidence: 0.8795743

00:28:52.540 --> 00:28:54.100 If you have questions,

NOTE Confidence: 0.8795743

00:28:54.100 --> 00:28:55.660 the address is canceranswers@yale.edu

NOTE Confidence: 0.8795743

00:28:55.660 --> 00:28:57.817 and past editions of the program

NOTE Confidence: 0.8795743

00:28:57.817 --> 00:28:59.785 are available in audio and written

NOTE Confidence: 0.8795743

00:28:59.847 --> 00:29:01.488 form at Yalecancercenter.org.

NOTE Confidence: 0.8795743

00:29:01.490 --> 00:29:04.442 We hope you'll join us next week to

NOTE Confidence: 0.8795743

00:29:04.442 --> 00:29:07.325 learn more about the fight against

NOTE Confidence: 0.8795743

00:29:07.325 --> 00:29:10.409 cancer here on Connecticut public radio.