

WEBVTT

NOTE duration:"01:02:20"

NOTE recognizability:0.441

NOTE language:en-us

NOTE Confidence: 0.46249732

00:00:00.000 --> 00:00:03.700 Good afternoon and welcome

NOTE Confidence: 0.46249732

00:00:03.700 --> 00:00:07.400 to this Grand Round.

NOTE Confidence: 0.46249732

00:00:07.400 --> 00:00:10.880 Today's speaker is Doctor Bruce Wennig.

NOTE Confidence: 0.46249732

00:00:10.880 --> 00:00:13.900 He's an internationally renowned head

NOTE Confidence: 0.46249732

00:00:13.900 --> 00:00:16.920 and neck and endocrine pathology.

NOTE Confidence: 0.46249732

00:00:16.920 --> 00:00:19.100 Dr. Wennig completed his

NOTE Confidence: 0.46249732

00:00:19.100 --> 00:00:21.280 pathology residency at Mount

NOTE Confidence: 0.46249732

00:00:21.280 --> 00:00:23.998 Sinai Medical Center in New York,

NOTE Confidence: 0.46249732

00:00:24.000 --> 00:00:26.960 and he went on to do a fellowship

NOTE Confidence: 0.46249732

00:00:26.960 --> 00:00:29.920 in anatomic pathology at Cedar

NOTE Confidence: 0.46249732

00:00:29.920 --> 00:00:33.800 Sinai Medical Center in Los Angeles.

NOTE Confidence: 0.46249732

00:00:33.800 --> 00:00:38.564 And then he did a second fellowship in

NOTE Confidence: 0.46249732

00:00:38.564 --> 00:00:40.960 auto laryngologic pathology at AFIP

NOTE Confidence: 0.32263222

00:00:43.040 --> 00:00:45.994 at the Armed Forces Institute of Pathology.
NOTE Confidence: 0.32263222

00:00:46.000 --> 00:00:49.918 Dr. Wennig quickly became a staff
NOTE Confidence: 0.32263222

00:00:49.918 --> 00:00:53.258 pathologist in the Department of
NOTE Confidence: 0.32263222

00:00:53.258 --> 00:00:56.142 Endocrine and Autolaryngologic Pathology,
NOTE Confidence: 0.32263222

00:00:56.142 --> 00:01:02.960 where he served from 1987 to 1998,
NOTE Confidence: 0.32263222

00:01:02.960 --> 00:01:05.120 a little over 10 years.
NOTE Confidence: 0.32263222

00:01:05.120 --> 00:01:06.443 During this time,
NOTE Confidence: 0.32263222

00:01:06.443 --> 00:01:09.530 he rose through the ranks to become
NOTE Confidence: 0.32263222

00:01:09.613 --> 00:01:11.938 Assistant Chair of the Department
NOTE Confidence: 0.32263222

00:01:11.938 --> 00:01:15.166 and later Chief of the Division
NOTE Confidence: 0.32263222

00:01:15.166 --> 00:01:17.599 of Autolaryngologic Pathology.
NOTE Confidence: 0.32263222

00:01:17.600 --> 00:01:19.097 During this time,
NOTE Confidence: 0.32263222

00:01:19.097 --> 00:01:22.091 he also served as consultant at
NOTE Confidence: 0.32263222

00:01:22.091 --> 00:01:25.543 Walter Reed Hospital and the National
NOTE Confidence: 0.32263222

00:01:25.543 --> 00:01:28.398 Naval Medical Center in Bethesda.
NOTE Confidence: 0.32263222

00:01:28.400 --> 00:01:33.880 He served the US Naval Reserve Medical Corps.

NOTE Confidence: 0.32263222

00:01:33.880 --> 00:01:35.480 In 1998,

NOTE Confidence: 0.32263222

00:01:35.480 --> 00:01:38.496 Doctor Wenig got an opportunity

NOTE Confidence: 0.32263222

00:01:38.496 --> 00:01:42.568 to move back to New York as Vice

NOTE Confidence: 0.32263222

00:01:42.568 --> 00:01:45.693 Chair of Anatomic Pathology at

NOTE Confidence: 0.32263222

00:01:45.693 --> 00:01:48.158 Albert Einstein College of Medicine.

NOTE Confidence: 0.6366864

00:01:50.280 --> 00:01:54.466 Subsequently, he became Vice Chair of 8th

NOTE Confidence: 0.6366864

00:01:54.466 --> 00:01:57.173 Anatomic Pathology at Bethesdale Medical

NOTE Confidence: 0.6366864

00:01:57.173 --> 00:02:00.638 Center and then became the Chair of

NOTE Confidence: 0.6366864

00:02:00.638 --> 00:02:04.200 Pathology at Continuum Healthcare System,

NOTE Confidence: 0.6366864

00:02:04.200 --> 00:02:08.880 which oversaw or included multiple hospital

NOTE Confidence: 0.6366864

00:02:08.880 --> 00:02:13.200 Pathology departments in New York City.

NOTE Confidence: 0.6366864

00:02:13.200 --> 00:02:15.200 Subsequent to it's merger

NOTE Confidence: 0.6366864

00:02:15.200 --> 00:02:17.200 with Mount Sinai Hospital,

NOTE Confidence: 0.6366864

00:02:17.200 --> 00:02:20.496 Doctor Wennig became a Site Chair and a

NOTE Confidence: 0.6366864

00:02:20.496 --> 00:02:23.959 Vice Chair in the Department of Pathology.

NOTE Confidence: 0.6366864

00:02:23.960 --> 00:02:27.782 Since 2016, Doctor Wennig has been at
NOTE Confidence: 0.6366864

00:02:27.782 --> 00:02:31.445 Moffett Cancer Center where he is currently
NOTE Confidence: 0.6366864

00:02:31.445 --> 00:02:35.813 the Chair of the Department of Pathology. Dr.
NOTE Confidence: 0.6366864

00:02:35.813 --> 00:02:39.437 Wennig has been very generous with his time,
NOTE Confidence: 0.6366864

00:02:39.440 --> 00:02:43.540 serving at many leadership positions
NOTE Confidence: 0.6366864

00:02:43.540 --> 00:02:46.450 and in many committees with the
NOTE Confidence: 0.6366864

00:02:46.534 --> 00:02:48.958 College of American Pathology,
NOTE Confidence: 0.6366864

00:02:48.960 --> 00:02:51.336 United States and Canadian
NOTE Confidence: 0.6366864

00:02:51.336 --> 00:02:53.118 Academy of Pathology.
NOTE Confidence: 0.6366864

00:02:53.120 --> 00:02:56.258 He was Vice President and President
NOTE Confidence: 0.6366864

00:02:56.258 --> 00:02:59.561 of the North American Society of
NOTE Confidence: 0.6366864

00:02:59.561 --> 00:03:02.356 Hedonic Pathology and also served
NOTE Confidence: 0.6366864

00:03:02.356 --> 00:03:05.822 on the Committee of the American
NOTE Confidence: 0.6366864

00:03:05.822 --> 00:03:10.200 Joint Committee on Cancers, AJCC.
NOTE Confidence: 0.6366864

00:03:10.200 --> 00:03:13.800 He's on the editorial board of many high
NOTE Confidence: 0.6366864

00:03:13.800 --> 00:03:16.459 impact factor pathology journals and

NOTE Confidence: 0.6366864

00:03:16.459 --> 00:03:19.795 has won many scholarships and awards,

NOTE Confidence: 0.6366864

00:03:19.800 --> 00:03:24.512 the most recent of which is the Maude

NOTE Confidence: 0.6366864

00:03:24.512 --> 00:03:27.643 Abbott Lectureship at USCAP in 2021.

NOTE Confidence: 0.6366864

00:03:27.643 --> 00:03:31.741 His prolific career is highlighted by

NOTE Confidence: 0.6366864

00:03:31.741 --> 00:03:35.400 publication of close to 150 original

NOTE Confidence: 0.6366864

00:03:35.400 --> 00:03:39.352 articles and close to 100 chapters,

NOTE Confidence: 0.6366864

00:03:39.352 --> 00:03:40.856 books, monographs,

NOTE Confidence: 0.6366864

00:03:40.856 --> 00:03:46.120 including chapters on in the Fletcher book,

NOTE Confidence: 0.6366864

00:03:46.120 --> 00:03:49.260 The Millsburg, The Barnesburg,

NOTE Confidence: 0.6366864

00:03:49.260 --> 00:03:53.970 and he's been a significant contributor

NOTE Confidence: 0.6366864

00:03:54.084 --> 00:03:57.744 to The Who Blue Book since 2005,

NOTE Confidence: 0.6366864

00:03:57.744 --> 00:04:00.720 since the third series.

NOTE Confidence: 0.6366864

00:04:00.720 --> 00:04:02.718 And in the current fifth series,

NOTE Confidence: 0.6366864

00:04:02.720 --> 00:04:06.128 Doctor Wennig is a member of

NOTE Confidence: 0.6366864

00:04:06.128 --> 00:04:07.832 the editorial board.

NOTE Confidence: 0.6366864

00:04:07.840 --> 00:04:10.836 So he's a much sought after speaker.
NOTE Confidence: 0.6366864

00:04:10.840 --> 00:04:13.666 And those who attended his morning
NOTE Confidence: 0.6366864

00:04:13.666 --> 00:04:16.561 slide seminar have seen a glimpse
NOTE Confidence: 0.6366864

00:04:16.561 --> 00:04:18.876 of what a fantastic educator
NOTE Confidence: 0.6366864

00:04:18.876 --> 00:04:21.079 and teacher Doctor Wenig is.
NOTE Confidence: 0.6366864

00:04:21.080 --> 00:04:22.460 So with that,
NOTE Confidence: 0.6366864

00:04:22.460 --> 00:04:22.920 Bruce,
NOTE Confidence: 0.5468971

00:04:25.920 --> 00:04:27.192 thank you Doctor Preside.
NOTE Confidence: 0.5468971

00:04:27.192 --> 00:04:29.640 It's a pleasure and honor to be here.
NOTE Confidence: 0.5468971

00:04:29.640 --> 00:04:31.476 I've actually never been to Yale,
NOTE Confidence: 0.5468971

00:04:31.480 --> 00:04:33.829 even though I grew up and lived in New
NOTE Confidence: 0.5468971

00:04:33.829 --> 00:04:36.040 York and Westchester for many years.
NOTE Confidence: 0.5468971

00:04:36.040 --> 00:04:37.748 Been a long time since I've been
NOTE Confidence: 0.5468971

00:04:37.748 --> 00:04:39.872 in an old school amphitheater and
NOTE Confidence: 0.5468971

00:04:39.872 --> 00:04:42.024 it's wonderful you're part of my
NOTE Confidence: 0.5468971

00:04:42.024 --> 00:04:43.920 informality Since I've moved to Florida.

NOTE Confidence: 0.5468971

00:04:43.920 --> 00:04:47.880 I know where longer wear a coat nor a jacket.

NOTE Confidence: 0.5468971

00:04:47.880 --> 00:04:49.154 So what I'd like to talk to

NOTE Confidence: 0.5468971

00:04:49.154 --> 00:04:50.438 you about is is listed here.

NOTE Confidence: 0.5468971

00:04:50.440 --> 00:04:52.192 It's viral cancer,

NOTE Confidence: 0.5468971

00:04:52.192 --> 00:04:54.524 associated cancers of the head and

NOTE Confidence: 0.5468971

00:04:54.524 --> 00:04:57.176 neck within this hour's talk spend most

NOTE Confidence: 0.5468971

00:04:57.176 --> 00:05:01.840 of the time on HPV related cancers.

NOTE Confidence: 0.5468971

00:05:01.840 --> 00:05:03.496 By now you're probably aware of

NOTE Confidence: 0.5468971

00:05:03.496 --> 00:05:04.600 the clinical pathologic features,

NOTE Confidence: 0.5468971

00:05:04.600 --> 00:05:06.280 but we'll go through that.

NOTE Confidence: 0.5468971

00:05:06.280 --> 00:05:08.355 There's an ever increasing morphologic

NOTE Confidence: 0.5468971

00:05:08.355 --> 00:05:10.738 spectrum of these tumors that I

NOTE Confidence: 0.5468971

00:05:10.738 --> 00:05:12.450 want to share with you that if

NOTE Confidence: 0.5468971

00:05:12.450 --> 00:05:14.900 you do head and neck or if you do

NOTE Confidence: 0.5468971

00:05:14.900 --> 00:05:16.448 psychology of superficial lesions,

NOTE Confidence: 0.5468971

00:05:16.448 --> 00:05:19.080 you should be aware of the spectrum
NOTE Confidence: 0.5468971

00:05:19.144 --> 00:05:21.514 of HPV related changes and not
NOTE Confidence: 0.5468971

00:05:21.514 --> 00:05:23.094 dismiss a particular morphology
NOTE Confidence: 0.5468971

00:05:23.159 --> 00:05:25.223 because you don't think we're going
NOTE Confidence: 0.5468971

00:05:25.223 --> 00:05:27.136 to think about the possibility
NOTE Confidence: 0.5468971

00:05:27.136 --> 00:05:31.800 of being an HPV positive cancer.
NOTE Confidence: 0.5468971

00:05:31.800 --> 00:05:35.920 P16 is helpful, but it can be confusing.
NOTE Confidence: 0.5468971

00:05:35.920 --> 00:05:37.840 So I want to spend a little bit
NOTE Confidence: 0.5468971

00:05:37.840 --> 00:05:39.812 time on mechanism, What's positive,
NOTE Confidence: 0.5468971

00:05:39.812 --> 00:05:41.436 what's negative, you know,
NOTE Confidence: 0.5468971

00:05:41.440 --> 00:05:43.708 when it may be applicable and
NOTE Confidence: 0.5468971

00:05:43.708 --> 00:05:45.560 when it may not be.
NOTE Confidence: 0.5468971

00:05:45.560 --> 00:05:47.315 And the granddaddy of head
NOTE Confidence: 0.5468971

00:05:47.315 --> 00:05:48.719 and neck viral cancers,
NOTE Confidence: 0.5468971

00:05:48.720 --> 00:05:50.928 his nasopharyngeal carcinoma,
NOTE Confidence: 0.5468971

00:05:50.928 --> 00:05:52.400 different location,

NOTE Confidence: 0.5468971

00:05:52.400 --> 00:05:53.972 overlapping morphology and like

NOTE Confidence: 0.5468971

00:05:53.972 --> 00:05:56.330 HPB often is a cult primary

NOTE Confidence: 0.5468971

00:05:56.400 --> 00:05:58.800 presenting with the neck metastasis.

NOTE Confidence: 0.5468971

00:05:58.800 --> 00:06:01.840 And you may be confronted with a lesion

NOTE Confidence: 0.5468971

00:06:01.840 --> 00:06:03.315 that has overlapping morphology that

NOTE Confidence: 0.5468971

00:06:03.315 --> 00:06:05.879 if you only think of 1 and not the other,

NOTE Confidence: 0.5468971

00:06:05.880 --> 00:06:09.572 we may miss the diagnosis and the clinical

NOTE Confidence: 0.5468971

00:06:09.572 --> 00:06:12.716 therapeutic impact on that is important.

NOTE Confidence: 0.5468971

00:06:12.720 --> 00:06:15.168 And then obviously you know once we

NOTE Confidence: 0.5468971

00:06:15.168 --> 00:06:17.296 get through that talk about the occult

NOTE Confidence: 0.5468971

00:06:17.296 --> 00:06:19.038 metastatic cancer all within an hour.

NOTE Confidence: 0.5468971

00:06:19.040 --> 00:06:20.720 So I will try to make this

NOTE Confidence: 0.5468971

00:06:20.720 --> 00:06:22.640 you know as quick as possible.

NOTE Confidence: 0.5468971

00:06:22.640 --> 00:06:25.532 So medical mortality,

NOTE Confidence: 0.5468971

00:06:25.532 --> 00:06:29.390 we can report in 2018 show the

NOTE Confidence: 0.5468971

00:06:29.390 --> 00:06:32.570 trends in HPV positive human cancers
NOTE Confidence: 0.5468971

00:06:32.570 --> 00:06:35.958 and as you can see here in about
NOTE Confidence: 0.5468971

00:06:35.960 --> 00:06:38.690 2010 or pharyngeal HPV cancer
NOTE Confidence: 0.5468971

00:06:38.690 --> 00:06:42.096 overtook cervical HPV as the most
NOTE Confidence: 0.5468971

00:06:42.096 --> 00:06:44.996 common human HPV related cancer.
NOTE Confidence: 0.5468971

00:06:45.000 --> 00:06:46.400 When you think about it,
NOTE Confidence: 0.5468971

00:06:46.400 --> 00:06:49.793 it makes sense because we have a Pap smear.
NOTE Confidence: 0.5468971

00:06:49.800 --> 00:06:52.220 So there's surveillance and early
NOTE Confidence: 0.5468971

00:06:52.220 --> 00:06:54.156 surveillance for cervical cancer.
NOTE Confidence: 0.5468971

00:06:54.160 --> 00:06:54.864 Conversely,
NOTE Confidence: 0.5468971

00:06:54.864 --> 00:06:57.680 there's no early manifestations
NOTE Confidence: 0.5468971

00:06:57.680 --> 00:06:59.318 of oropharyngeal cancer.
NOTE Confidence: 0.5468971

00:06:59.318 --> 00:07:00.956 They're clinically quiescent,
NOTE Confidence: 0.5468971

00:07:00.960 --> 00:07:02.512 often patients present with
NOTE Confidence: 0.5468971

00:07:02.512 --> 00:07:03.676 the neck metastasis.
NOTE Confidence: 0.5468971

00:07:03.680 --> 00:07:05.157 There's no way to screen for them.

NOTE Confidence: 0.5468971
00:07:05.160 --> 00:07:05.990 There's some,
NOTE Confidence: 0.5468971
00:07:05.990 --> 00:07:06.820 you know,
NOTE Confidence: 0.5468971
00:07:06.820 --> 00:07:08.895 ongoing saliva and testing that
NOTE Confidence: 0.5468971
00:07:08.895 --> 00:07:11.636 may portend the possibility of that,
NOTE Confidence: 0.5468971
00:07:11.640 --> 00:07:13.719 but it's not ready for prime time.
NOTE Confidence: 0.5468971
00:07:13.720 --> 00:07:16.276 So it makes sense that because
NOTE Confidence: 0.5468971
00:07:16.276 --> 00:07:18.422 there's no surveillance and with
NOTE Confidence: 0.5468971
00:07:18.422 --> 00:07:20.577 increased incidence it's going to
NOTE Confidence: 0.5468971
00:07:20.577 --> 00:07:22.551 overtake cervical cancer and all
NOTE Confidence: 0.5468971
00:07:22.551 --> 00:07:24.707 other cancers in terms of being the
NOTE Confidence: 0.5468971
00:07:24.707 --> 00:07:26.759 most common HPV related cancer.
NOTE Confidence: 0.5468971
00:07:26.760 --> 00:07:29.344 So when we think about head and neck
NOTE Confidence: 0.5468971
00:07:29.344 --> 00:07:31.387 squamous carcinoma and in spectrum of
NOTE Confidence: 0.5468971
00:07:31.387 --> 00:07:33.391 squamous carcinoma or the HPV cancers,
NOTE Confidence: 0.5468971
00:07:33.400 --> 00:07:35.878 you know this is the typical scenario,
NOTE Confidence: 0.5468971

00:07:35.880 --> 00:07:41.040 older tobacco abuser, alcohol abuser,
NOTE Confidence: 0.5468971

00:07:41.040 --> 00:07:41.341 right.
NOTE Confidence: 0.5468971

00:07:41.341 --> 00:07:43.147 So this is what we think
NOTE Confidence: 0.5468971

00:07:43.147 --> 00:07:44.050 about for conventional
NOTE Confidence: 0.5717093

00:07:44.108 --> 00:07:46.404 squamous cancer. But as you know
NOTE Confidence: 0.5717093

00:07:46.404 --> 00:07:48.510 by now the the demographics for
NOTE Confidence: 0.5717093

00:07:48.590 --> 00:07:50.840 the HPV is different, younger
NOTE Confidence: 0.5717093

00:07:53.280 --> 00:07:58.066 often Caucasian, often affluent and so
NOTE Confidence: 0.5717093

00:07:58.066 --> 00:08:01.097 that sets up a compare and contrast
NOTE Confidence: 0.5717093

00:08:01.097 --> 00:08:03.208 between HPV associated and HPV independent.
NOTE Confidence: 0.5717093

00:08:03.208 --> 00:08:05.512 And just to briefly go through this
NOTE Confidence: 0.5717093

00:08:05.512 --> 00:08:07.560 and I'll go through it in more detail.
NOTE Confidence: 0.5717093

00:08:07.560 --> 00:08:11.596 So tend to be younger risk factors
NOTE Confidence: 0.5717093

00:08:11.596 --> 00:08:14.104 are related to HPV and conversely
NOTE Confidence: 0.5717093

00:08:14.104 --> 00:08:15.879 non HPV is alcohol,
NOTE Confidence: 0.5717093

00:08:15.880 --> 00:08:19.392 is tobacco and alcohol the primary

NOTE Confidence: 0.5717093

00:08:19.392 --> 00:08:20.976 location for these oropharyngeal

NOTE Confidence: 0.5717093

00:08:20.976 --> 00:08:23.439 cancers at the base of the tongue

NOTE Confidence: 0.5717093

00:08:23.440 --> 00:08:25.358 and the tonsil and we'll go through

NOTE Confidence: 0.5717093

00:08:25.358 --> 00:08:27.173 that some of that morphology and

NOTE Confidence: 0.5717093

00:08:27.173 --> 00:08:29.039 why it may localize to there.

NOTE Confidence: 0.5717093

00:08:29.040 --> 00:08:32.456 It's a rather unique type of epithelium

NOTE Confidence: 0.5717093

00:08:32.456 --> 00:08:33.920 called reticulated epithelium.

NOTE Confidence: 0.5717093

00:08:33.920 --> 00:08:37.456 As far as I'm aware that epithelium doesn't

NOTE Confidence: 0.5717093

00:08:37.456 --> 00:08:40.003 exist elsewhere which may explain some

NOTE Confidence: 0.5717093

00:08:40.003 --> 00:08:43.359 of the issues related to these HPV cancers.

NOTE Confidence: 0.5717093

00:08:43.360 --> 00:08:47.280 The other tobacco related or HPV

NOTE Confidence: 0.5717093

00:08:47.280 --> 00:08:50.720 independent can arise of any mucosal site,

NOTE Confidence: 0.5717093

00:08:50.720 --> 00:08:51.530 oral cavity,

NOTE Confidence: 0.5717093

00:08:51.530 --> 00:08:53.960 larynx of the more common locations.

NOTE Confidence: 0.5717093

00:08:53.960 --> 00:08:57.222 There is a pre malignant lesion association

NOTE Confidence: 0.5717093

00:08:57.222 --> 00:09:00.478 associated with the HPV independent cancers.

NOTE Confidence: 0.5717093

00:09:00.480 --> 00:09:03.408 We see dysplasia that predates or

NOTE Confidence: 0.5717093

00:09:03.408 --> 00:09:06.040 or precedes the invasive cancer.

NOTE Confidence: 0.5717093

00:09:06.040 --> 00:09:08.302 The same is not necessarily applicable

NOTE Confidence: 0.5717093

00:09:08.302 --> 00:09:10.400 for the HPV related cancers.

NOTE Confidence: 0.5717093

00:09:10.400 --> 00:09:12.440 The Histology is different the

NOTE Confidence: 0.5717093

00:09:12.440 --> 00:09:15.356 ones that are HPV related or

NOTE Confidence: 0.5717093

00:09:15.356 --> 00:09:16.958 predominantly uncharatinizing.

NOTE Confidence: 0.5717093

00:09:16.960 --> 00:09:18.532 That doesn't mean you can't get

NOTE Confidence: 0.5717093

00:09:18.532 --> 00:09:20.040 characterization as I will show you,

NOTE Confidence: 0.5717093

00:09:20.040 --> 00:09:21.960 but the independent ones

NOTE Confidence: 0.5717093

00:09:21.960 --> 00:09:23.400 are primarily keratinizing.

NOTE Confidence: 0.5717093

00:09:23.400 --> 00:09:26.040 We'll go through P16 and and

NOTE Confidence: 0.5717093

00:09:26.040 --> 00:09:27.800 and insight to HPV.

NOTE Confidence: 0.5717093

00:09:27.800 --> 00:09:30.024 You need to be aware and I'll I'll

NOTE Confidence: 0.5717093

00:09:30.024 --> 00:09:32.505 go through it again that there's this

NOTE Confidence: 0.5717093

00:09:32.505 --> 00:09:35.216 degrading of these non keratinizing

NOTE Confidence: 0.5717093

00:09:35.216 --> 00:09:37.655 cancers are not applicable and I'll

NOTE Confidence: 0.5717093

00:09:37.655 --> 00:09:40.495 explain why most people view them as

NOTE Confidence: 0.5717093

00:09:40.495 --> 00:09:42.323 poorly differentiated but they're

NOTE Confidence: 0.5717093

00:09:42.323 --> 00:09:44.676 in fact differentiated even though

NOTE Confidence: 0.5717093

00:09:44.676 --> 00:09:47.462 we don't see keratinization and the

NOTE Confidence: 0.5717093

00:09:47.462 --> 00:09:49.917 HPV cancers are radio responsive,

NOTE Confidence: 0.5717093

00:09:49.920 --> 00:09:51.513 radiosensitive and chemotherapeutically

NOTE Confidence: 0.5717093

00:09:51.513 --> 00:09:54.168 sensitive conversely the non or

NOTE Confidence: 0.5717093

00:09:54.168 --> 00:09:56.917 the HPV independent ones or not.

NOTE Confidence: 0.5717093

00:09:56.920 --> 00:10:00.511 And that contrasts in terms of you

NOTE Confidence: 0.5717093

00:10:00.511 --> 00:10:03.130 know biologic behavior in response

NOTE Confidence: 0.5717093

00:10:03.130 --> 00:10:05.648 to therapy before we get bogged

NOTE Confidence: 0.5717093

00:10:05.648 --> 00:10:07.558 down on a particular age.

NOTE Confidence: 0.5717093

00:10:07.560 --> 00:10:09.744 This graph just shows that HPV

NOTE Confidence: 0.5717093

00:10:09.744 --> 00:10:11.650 related cancers are not limited
NOTE Confidence: 0.5717093

00:10:11.650 --> 00:10:13.560 to a particular age group.
NOTE Confidence: 0.5717093

00:10:13.560 --> 00:10:15.832 You could see the trend here is that
NOTE Confidence: 0.5717093

00:10:15.832 --> 00:10:18.319 it can occur in older age patients.
NOTE Confidence: 0.5717093

00:10:18.320 --> 00:10:19.796 You know and maybe the poster
NOTE Confidence: 0.5717093

00:10:19.796 --> 00:10:21.680 child for that is Michael Douglas,
NOTE Confidence: 0.5717093

00:10:21.680 --> 00:10:23.556 would they have an HPV related cancer,
NOTE Confidence: 0.5717093

00:10:23.560 --> 00:10:24.376 older, white,
NOTE Confidence: 0.5717093

00:10:24.376 --> 00:10:26.824 affluent and not within the demographics
NOTE Confidence: 0.5717093

00:10:26.824 --> 00:10:29.359 that it was originally described.
NOTE Confidence: 0.5717093

00:10:29.360 --> 00:10:32.111 Before we get into some of the
NOTE Confidence: 0.5717093

00:10:32.111 --> 00:10:33.920 histological or pathologic details,
NOTE Confidence: 0.5717093

00:10:33.920 --> 00:10:37.400 yes, these are viral related,
NOTE Confidence: 0.5717093

00:10:37.400 --> 00:10:39.688 but tobacco smoking negatively
NOTE Confidence: 0.5717093

00:10:39.688 --> 00:10:43.120 impacts on response to to therapy.
NOTE Confidence: 0.5717093

00:10:43.120 --> 00:10:44.311 And these graphs,

NOTE Confidence: 0.5717093

00:10:44.311 --> 00:10:48.106 the top ones are you know HPV alone related,

NOTE Confidence: 0.5717093

00:10:48.106 --> 00:10:50.636 independent and the bottom two

NOTE Confidence: 0.5717093

00:10:50.636 --> 00:10:52.154 are with smoking,

NOTE Confidence: 0.5717093

00:10:52.160 --> 00:10:54.477 HPV with smoking and HP and this

NOTE Confidence: 0.5717093

00:10:54.477 --> 00:10:56.694 is patients who have greater than

NOTE Confidence: 0.5717093

00:10:56.694 --> 00:10:58.992 30 pack year history of smoking.

NOTE Confidence: 0.5717093

00:10:59.000 --> 00:11:01.968 So you could see the trend is that

NOTE Confidence: 0.5717093

00:11:01.968 --> 00:11:04.831 patients who had HPV and are tobacco

NOTE Confidence: 0.5717093

00:11:04.831 --> 00:11:07.480 abusers are poor responders to

NOTE Confidence: 0.5717093

00:11:07.480 --> 00:11:10.472 treatment and that's true across

NOTE Confidence: 0.5717093

00:11:10.472 --> 00:11:12.444 this all AJC staging levels.

NOTE Confidence: 0.5717093

00:11:12.444 --> 00:11:15.879 So this is a nice paper that details that.

NOTE Confidence: 0.5717093

00:11:15.880 --> 00:11:20.391 Just want to show you that HPV is

NOTE Confidence: 0.5717093

00:11:20.391 --> 00:11:22.595 negatively impacted by cofactors

NOTE Confidence: 0.5717093

00:11:22.595 --> 00:11:24.799 which include tobacco use.

NOTE Confidence: 0.5717093

00:11:24.800 --> 00:11:26.180 So I wanted to present this
NOTE Confidence: 0.5717093

00:11:26.180 --> 00:11:27.100 whole scenario with an
NOTE Confidence: 0.6414283

00:11:27.148 --> 00:11:28.756 actual case when I was in New York.
NOTE Confidence: 0.6414283

00:11:28.760 --> 00:11:30.680 This case came about.
NOTE Confidence: 0.6414283

00:11:30.680 --> 00:11:33.296 You know the demographics match what
NOTE Confidence: 0.6414283

00:11:33.296 --> 00:11:36.080 I showed you before 41 year old man.
NOTE Confidence: 0.6414283

00:11:36.080 --> 00:11:38.120 He presented with an enlarging left.
NOTE Confidence: 0.6414283

00:11:38.120 --> 00:11:42.048 Level 2 AI will show you
NOTE Confidence: 0.6414283

00:11:42.048 --> 00:11:43.194 the topographic anatomy.
NOTE Confidence: 0.6414283

00:11:43.200 --> 00:11:46.680 So for those of you who do head and neck,
NOTE Confidence: 0.6414283

00:11:46.680 --> 00:11:48.416 I don't know if there are any clinicians
NOTE Confidence: 0.6414283

00:11:48.416 --> 00:11:49.918 in the group or or listening,
NOTE Confidence: 0.6414283

00:11:49.920 --> 00:11:53.637 but neck mass does not mean anything.
NOTE Confidence: 0.6414283

00:11:53.640 --> 00:11:55.992 Neck mass in a particular anatomic
NOTE Confidence: 0.6414283

00:11:55.992 --> 00:11:57.560 location could mean everything.
NOTE Confidence: 0.6414283

00:11:57.560 --> 00:11:59.936 So if I know clinically it's

NOTE Confidence: 0.6414283
00:11:59.936 --> 00:12:01.520 a supraclavicular lymph node,
NOTE Confidence: 0.6414283
00:12:01.520 --> 00:12:03.380 that primary is most likely going
NOTE Confidence: 0.6414283
00:12:03.380 --> 00:12:05.242 to be somewhere outside the head
NOTE Confidence: 0.6414283
00:12:05.242 --> 00:12:06.916 and neck and below the clavicle.
NOTE Confidence: 0.6414283
00:12:06.920 --> 00:12:07.275 Conversely,
NOTE Confidence: 0.6414283
00:12:07.275 --> 00:12:10.057 if I know it's a level 2A or
NOTE Confidence: 0.6414283
00:12:10.057 --> 00:12:11.839 in the area of level 2,
NOTE Confidence: 0.6414283
00:12:11.840 --> 00:12:13.550 that's a common drainage location
NOTE Confidence: 0.6414283
00:12:13.550 --> 00:12:14.918 for an oropharyngeal cancer.
NOTE Confidence: 0.6414283
00:12:14.920 --> 00:12:17.034 So it's very important to be aware
NOTE Confidence: 0.6414283
00:12:17.034 --> 00:12:18.740 of the clinical presentation and
NOTE Confidence: 0.6414283
00:12:18.740 --> 00:12:20.960 nowhere in the neck that occurs.
NOTE Confidence: 0.6414283
00:12:20.960 --> 00:12:23.564 This patient had no history of any
NOTE Confidence: 0.6414283
00:12:23.564 --> 00:12:26.000 past cancers and no known history.
NOTE Confidence: 0.6414283
00:12:26.000 --> 00:12:28.870 And here's the seven levels of the
NOTE Confidence: 0.6414283

00:12:28.870 --> 00:12:31.184 topographic lymph node anatomy of the
NOTE Confidence: 0.6414283

00:12:31.184 --> 00:12:34.226 head and neck and and level 2A and 2B,
NOTE Confidence: 0.6414283

00:12:34.226 --> 00:12:36.620 which is a common but not unique
NOTE Confidence: 0.6414283

00:12:36.701 --> 00:12:38.689 dedicated drainage from the
NOTE Confidence: 0.6414283

00:12:38.689 --> 00:12:41.594 oropharynx is a common location for
NOTE Confidence: 0.6414283

00:12:41.594 --> 00:12:43.879 Nicole primary metastas to occur,
NOTE Confidence: 0.6414283

00:12:43.880 --> 00:12:46.118 whether in and around the parotid
NOTE Confidence: 0.6414283

00:12:46.118 --> 00:12:48.545 and we'll get to that later
NOTE Confidence: 0.6414283

00:12:48.545 --> 00:12:50.680 or separate from the parotid.
NOTE Confidence: 0.6414283

00:12:50.680 --> 00:12:54.208 So this patient on T1 and 2TT2 weighted
NOTE Confidence: 0.6414283

00:12:54.208 --> 00:12:57.760 images had a cystic lesion that had necrosis.
NOTE Confidence: 0.6414283

00:12:57.760 --> 00:12:59.588 So cystic necrotic mass.
NOTE Confidence: 0.6414283

00:12:59.588 --> 00:13:01.873 This is that patient's biopsy.
NOTE Confidence: 0.6414283

00:13:01.880 --> 00:13:02.720 It's an FNA.
NOTE Confidence: 0.6414283

00:13:02.720 --> 00:13:03.840 I'm not a cytopathologist.
NOTE Confidence: 0.6414283

00:13:03.840 --> 00:13:06.115 I don't pretend to be a cytopathologist,

NOTE Confidence: 0.6414283
00:13:06.120 --> 00:13:08.367 but even I can recognize that these
NOTE Confidence: 0.6414283
00:13:08.367 --> 00:13:09.720 are malignant basaloid cells.
NOTE Confidence: 0.6414283
00:13:09.720 --> 00:13:11.016 They're cohesive.
NOTE Confidence: 0.6414283
00:13:11.016 --> 00:13:12.960 There's no characterization.
NOTE Confidence: 0.6414283
00:13:12.960 --> 00:13:14.928 You know from day one that
NOTE Confidence: 0.6414283
00:13:14.928 --> 00:13:15.912 we're taught pathology.
NOTE Confidence: 0.6414283
00:13:15.920 --> 00:13:17.040 The more a tumor looks
NOTE Confidence: 0.6414283
00:13:17.040 --> 00:13:18.160 like it's all of origin,
NOTE Confidence: 0.6414283
00:13:18.160 --> 00:13:20.000 the better differentiated it is,
NOTE Confidence: 0.6414283
00:13:20.000 --> 00:13:22.160 the less it looks like it's all of origin,
NOTE Confidence: 0.6414283
00:13:22.160 --> 00:13:23.582 the less differentiated.
NOTE Confidence: 0.6414283
00:13:23.582 --> 00:13:26.092 So it makes sense to think
NOTE Confidence: 0.6414283
00:13:26.092 --> 00:13:27.831 about this as a metastatic,
NOTE Confidence: 0.6414283
00:13:27.831 --> 00:13:30.386 poor differentiated carcinoma and it
NOTE Confidence: 0.6414283
00:13:30.386 --> 00:13:32.680 is instance favor squamous cancer.
NOTE Confidence: 0.6414283

00:13:32.680 --> 00:13:35.720 The patient had a pet CT not only
NOTE Confidence: 0.6414283

00:13:35.803 --> 00:13:38.239 lights up that large cystic met,
NOTE Confidence: 0.6414283

00:13:38.240 --> 00:13:39.905 but there's another metastasis and
NOTE Confidence: 0.6414283

00:13:39.905 --> 00:13:42.024 at the ipsilateral base of the
NOTE Confidence: 0.6414283

00:13:42.024 --> 00:13:43.596 tongue there's increased uptake.
NOTE Confidence: 0.41070467

00:13:45.800 --> 00:13:48.810 So then the biopsy happened and this
NOTE Confidence: 0.41070467

00:13:48.810 --> 00:13:52.170 is tells you a lot about the nature
NOTE Confidence: 0.41070467

00:13:52.170 --> 00:13:54.266 of this tumor and low magnification.
NOTE Confidence: 0.41070467

00:13:54.266 --> 00:13:56.078 There's nobody in this room that
NOTE Confidence: 0.41070467

00:13:56.078 --> 00:13:57.718 can tell me where they can't.
NOTE Confidence: 0.41070467

00:13:57.720 --> 00:14:00.159 Yeah, I put the arrow where the cancer is,
NOTE Confidence: 0.41070467

00:14:00.160 --> 00:14:01.880 right? But the point being,
NOTE Confidence: 0.41070467

00:14:01.880 --> 00:14:05.160 it's small wall dyer's ring of which the
NOTE Confidence: 0.41070467

00:14:05.160 --> 00:14:08.040 Oropharynx is extranodal lymphoid tissue.
NOTE Confidence: 0.41070467

00:14:08.040 --> 00:14:10.644 There's a lot of lymphoid infiltrate that
NOTE Confidence: 0.41070467

00:14:10.644 --> 00:14:13.367 can overrun the tumor and these tend

NOTE Confidence: 0.41070467

00:14:13.367 --> 00:14:15.677 not to induce a desmoplastic response.

NOTE Confidence: 0.41070467

00:14:15.680 --> 00:14:17.972 Maybe the body doesn't view this

NOTE Confidence: 0.41070467

00:14:17.972 --> 00:14:19.118 as being foreign.

NOTE Confidence: 0.41070467

00:14:19.120 --> 00:14:20.800 If you look at conventional

NOTE Confidence: 0.41070467

00:14:20.800 --> 00:14:22.480 squamous cancer would invade its

NOTE Confidence: 0.41070467

00:14:22.543 --> 00:14:23.633 hard morphologically low power.

NOTE Confidence: 0.41070467

00:14:23.633 --> 00:14:25.379 You see the cancer and there's

NOTE Confidence: 0.41070467

00:14:25.379 --> 00:14:26.958 a desmoplastic response.

NOTE Confidence: 0.41070467

00:14:26.960 --> 00:14:29.560 So small tumor as I will show you,

NOTE Confidence: 0.41070467

00:14:29.560 --> 00:14:33.440 no desmoplasia coexisting benign

NOTE Confidence: 0.41070467

00:14:33.440 --> 00:14:35.840 lymphoplasmic cytic infiltrate.

NOTE Confidence: 0.41070467

00:14:35.840 --> 00:14:37.454 It's easy to overlook and if

NOTE Confidence: 0.41070467

00:14:37.454 --> 00:14:39.080 you look at the surface,

NOTE Confidence: 0.41070467

00:14:39.080 --> 00:14:41.000 there's no dysplasia we talked

NOTE Confidence: 0.41070467

00:14:41.000 --> 00:14:42.920 about no pre malignant lesion.

NOTE Confidence: 0.41070467

00:14:42.920 --> 00:14:44.572 But as we get to a little
NOTE Confidence: 0.41070467

00:14:44.572 --> 00:14:45.280 bit higher magnification,
NOTE Confidence: 0.41070467

00:14:45.280 --> 00:14:47.206 you could see the malignant basaloid
NOTE Confidence: 0.41070467

00:14:47.206 --> 00:14:49.437 cells that match what was in the neck.
NOTE Confidence: 0.41070467

00:14:49.440 --> 00:14:51.276 There's also some disc keratotic cells.
NOTE Confidence: 0.41070467

00:14:51.280 --> 00:14:54.055 So these are not completely
NOTE Confidence: 0.41070467

00:14:54.055 --> 00:14:55.720 devoid of characterization.
NOTE Confidence: 0.41070467

00:14:55.720 --> 00:14:56.880 And deeper in the block,
NOTE Confidence: 0.41070467

00:14:56.880 --> 00:14:58.440 you can see there's more tumor,
NOTE Confidence: 0.41070467

00:14:58.440 --> 00:15:00.080 but it's still small,
NOTE Confidence: 0.41070467

00:15:00.080 --> 00:15:01.720 certainly under a centimeter,
NOTE Confidence: 0.41070467

00:15:01.720 --> 00:15:03.880 your keratin positive and P16,
NOTE Confidence: 0.41070467

00:15:03.880 --> 00:15:05.398 I'm just showing you for now.
NOTE Confidence: 0.41070467

00:15:05.400 --> 00:15:08.400 We'll talk about that a little bit later.
NOTE Confidence: 0.41070467

00:15:08.400 --> 00:15:11.400 Often these arise in the tonsil or crypt,
NOTE Confidence: 0.41070467

00:15:11.400 --> 00:15:12.648 there's a different case.

NOTE Confidence: 0.41070467
00:15:12.648 --> 00:15:14.208 So if you think patient
NOTE Confidence: 0.41070467
00:15:14.208 --> 00:15:15.639 has a neck metastasis,
NOTE Confidence: 0.41070467
00:15:15.640 --> 00:15:17.446 you know if you don't do a
NOTE Confidence: 0.41070467
00:15:17.446 --> 00:15:19.136 tonsillectomy with do blonde clinicians
NOTE Confidence: 0.41070467
00:15:19.136 --> 00:15:21.280 do endoscopic blind biopsies.
NOTE Confidence: 0.41070467
00:15:21.280 --> 00:15:22.414 If they only took the biopsy
NOTE Confidence: 0.41070467
00:15:22.414 --> 00:15:23.760 up to that where the arrow is,
NOTE Confidence: 0.41070467
00:15:23.760 --> 00:15:25.278 they're going to miss the cancer.
NOTE Confidence: 0.41070467
00:15:25.280 --> 00:15:27.104 It's lurking in the sub in
NOTE Confidence: 0.41070467
00:15:27.104 --> 00:15:28.320 in the tonsilla crypt.
NOTE Confidence: 0.41070467
00:15:28.320 --> 00:15:30.318 This is a fairly obvious one.
NOTE Confidence: 0.41070467
00:15:30.320 --> 00:15:31.120 You could see it here.
NOTE Confidence: 0.41070467
00:15:31.120 --> 00:15:34.880 It's cystic and it's necrotic
NOTE Confidence: 0.41070467
00:15:34.880 --> 00:15:36.448 and when he's metastasized,
NOTE Confidence: 0.41070467
00:15:36.448 --> 00:15:38.800 they metastasize his cystic necrotic tumors.
NOTE Confidence: 0.41070467

00:15:38.800 --> 00:15:41.752 We'll talk later towards the end
NOTE Confidence: 0.41070467

00:15:41.752 --> 00:15:43.720 about occult metastatic cancers,
NOTE Confidence: 0.41070467

00:15:43.720 --> 00:15:46.079 but in the absence of a known
NOTE Confidence: 0.41070467

00:15:46.079 --> 00:15:47.680 primary a cystic lesion,
NOTE Confidence: 0.41070467

00:15:47.680 --> 00:15:49.732 some people might think about the
NOTE Confidence: 0.41070467

00:15:49.732 --> 00:15:51.509 concept of a carcinoma arising
NOTE Confidence: 0.41070467

00:15:51.509 --> 00:15:53.239 in a branchial cleft cyst,
NOTE Confidence: 0.41070467

00:15:53.240 --> 00:15:56.120 which doesn't exist as far as we know
NOTE Confidence: 0.41070467

00:15:56.120 --> 00:15:58.760 and we'll come back to that later.
NOTE Confidence: 0.41070467

00:15:58.760 --> 00:16:00.023 And then hydromagnification,
NOTE Confidence: 0.41070467

00:16:00.023 --> 00:16:02.549 you could see that this is
NOTE Confidence: 0.41070467

00:16:02.549 --> 00:16:04.199 predominantly non characterizing.
NOTE Confidence: 0.41070467

00:16:04.200 --> 00:16:05.676 There's a little bit of characterization,
NOTE Confidence: 0.41070467

00:16:05.680 --> 00:16:08.158 but that that's the primary cancer.
NOTE Confidence: 0.41070467

00:16:08.160 --> 00:16:10.000 Some other examples just showing
NOTE Confidence: 0.41070467

00:16:10.000 --> 00:16:12.400 even at the left low magnification

NOTE Confidence: 0.41070467

00:16:12.400 --> 00:16:15.316 you can identify the cell clusters,

NOTE Confidence: 0.41070467

00:16:15.320 --> 00:16:17.975 they're permeated by lymphocytes and

NOTE Confidence: 0.41070467

00:16:17.975 --> 00:16:20.159 plasma cells. There's no desmoplasia.

NOTE Confidence: 0.41070467

00:16:20.159 --> 00:16:21.278 On the right,

NOTE Confidence: 0.41070467

00:16:21.280 --> 00:16:23.891 there's a series of three images that

NOTE Confidence: 0.41070467

00:16:23.891 --> 00:16:27.040 just called, you know focus on those.

NOTE Confidence: 0.41070467

00:16:27.040 --> 00:16:29.760 The bottom one shows nucleopleomorphism.

NOTE Confidence: 0.41070467

00:16:29.760 --> 00:16:31.980 I've seen cases with a lot

NOTE Confidence: 0.41070467

00:16:31.980 --> 00:16:32.720 more nucleopleomorphism.

NOTE Confidence: 0.41070467

00:16:32.720 --> 00:16:35.247 There's at least one article in the

NOTE Confidence: 0.41070467

00:16:35.247 --> 00:16:37.167 literature that suggests that the

NOTE Confidence: 0.41070467

00:16:37.167 --> 00:16:39.092 presence of nucleomegaly and bizarre

NOTE Confidence: 0.41070467

00:16:39.092 --> 00:16:41.398 nuclei may portend a worst prognosis.

NOTE Confidence: 0.41070467

00:16:41.400 --> 00:16:43.360 I don't know if that's ever held up,

NOTE Confidence: 0.41070467

00:16:43.360 --> 00:16:45.415 but it's in the literature and

NOTE Confidence: 0.41070467

00:16:45.415 --> 00:16:46.640 for now we'll come back to this.
NOTE Confidence: 0.41070467

00:16:46.640 --> 00:16:49.916 The proof is in the P16
NOTE Confidence: 0.33095527

00:16:49.920 --> 00:16:52.600 and insight to HPV.
NOTE Confidence: 0.33095527

00:16:52.600 --> 00:16:55.666 These cancers are diffusely keratin positive
NOTE Confidence: 0.33095527

00:16:55.666 --> 00:16:58.279 whichever keratin you'd like to use,
NOTE Confidence: 0.33095527

00:16:58.280 --> 00:17:00.880 and diffusely P40 and P63.
NOTE Confidence: 0.33095527

00:17:00.880 --> 00:17:03.546 And this is important to know because if
NOTE Confidence: 0.33095527

00:17:03.546 --> 00:17:07.332 you have a metastatic cancer in the neck,
NOTE Confidence: 0.33095527

00:17:07.332 --> 00:17:09.826 that's basaloid nor endocrine cancers
NOTE Confidence: 0.33095527

00:17:09.826 --> 00:17:11.674 becoming the differential particularly
NOTE Confidence: 0.33095527

00:17:11.674 --> 00:17:14.232 small cell and they conversely
NOTE Confidence: 0.33095527

00:17:14.232 --> 00:17:17.200 are typically P40P63 negative,
NOTE Confidence: 0.33095527

00:17:17.200 --> 00:17:19.160 CK56 negative, so the NOR
NOTE Confidence: 0.33095527

00:17:19.160 --> 00:17:21.120 endercome markers will be positive.
NOTE Confidence: 0.33095527

00:17:21.120 --> 00:17:23.880 But in these non keratin cancers,
NOTE Confidence: 0.33095527

00:17:23.880 --> 00:17:27.120 conversely they're keratin positive

NOTE Confidence: 0.33095527

00:17:27.120 --> 00:17:28.520 P40P63 whichever one you want,

NOTE Confidence: 0.33095527

00:17:28.520 --> 00:17:30.718 if you use both, they'll be positive.

NOTE Confidence: 0.33095527

00:17:30.720 --> 00:17:32.560 They're negative for neuroendocrine markers,

NOTE Confidence: 0.33095527

00:17:32.560 --> 00:17:35.640 melanocytic markers and lymphoid markers.

NOTE Confidence: 0.33095527

00:17:35.640 --> 00:17:37.260 I mentioned before the

NOTE Confidence: 0.33095527

00:17:37.260 --> 00:17:38.475 issue of differentiation.

NOTE Confidence: 0.33095527

00:17:38.480 --> 00:17:40.643 So as you go from the left

NOTE Confidence: 0.33095527

00:17:40.643 --> 00:17:42.599 panel to the right panel,

NOTE Confidence: 0.33095527

00:17:42.600 --> 00:17:43.740 the more a tumor looks

NOTE Confidence: 0.33095527

00:17:43.740 --> 00:17:44.880 like it's cell of origin,

NOTE Confidence: 0.33095527

00:17:44.880 --> 00:17:46.376 the better differentiated it.

NOTE Confidence: 0.33095527

00:17:46.376 --> 00:17:48.246 So we're going from well

NOTE Confidence: 0.33095527

00:17:48.246 --> 00:17:50.039 differentiated to mildly differentiated

NOTE Confidence: 0.33095527

00:17:50.039 --> 00:17:51.395 to poorly differentiated.

NOTE Confidence: 0.33095527

00:17:51.400 --> 00:17:54.240 So if we use that concept for that

NOTE Confidence: 0.33095527

00:17:54.240 --> 00:17:57.074 neck metastasis in a different case but
NOTE Confidence: 0.33095527

00:17:57.074 --> 00:18:01.200 nonetheless a non keratizing carcinoma,
NOTE Confidence: 0.33095527

00:18:01.200 --> 00:18:03.255 the natural thought process is
NOTE Confidence: 0.33095527

00:18:03.255 --> 00:18:05.833 it's not baking carrot in and
NOTE Confidence: 0.33095527

00:18:05.833 --> 00:18:08.038 has to be poorly differentiated.
NOTE Confidence: 0.33095527

00:18:08.040 --> 00:18:10.154 But according to the CAP Synoptic protocol,
NOTE Confidence: 0.33095527

00:18:10.160 --> 00:18:12.480 these cancers don't get graded.
NOTE Confidence: 0.33095527

00:18:12.480 --> 00:18:14.520 And the reason for that although
NOTE Confidence: 0.33095527

00:18:14.520 --> 00:18:15.880 these terminologies were used,
NOTE Confidence: 0.33095527

00:18:15.880 --> 00:18:18.316 over time these are non carrotizing,
NOTE Confidence: 0.33095527

00:18:18.320 --> 00:18:20.424 they recapitulate the tonsilla
NOTE Confidence: 0.33095527

00:18:20.424 --> 00:18:21.476 crypt epithelium.
NOTE Confidence: 0.33095527

00:18:21.480 --> 00:18:24.434 So in fact they are differentiated cancers,
NOTE Confidence: 0.33095527

00:18:24.440 --> 00:18:26.064 albeit with no carrotization.
NOTE Confidence: 0.33095527

00:18:26.064 --> 00:18:28.958 So it's important to know that if
NOTE Confidence: 0.33095527

00:18:28.958 --> 00:18:31.280 you're staging these or grading them,

NOTE Confidence: 0.33095527

00:18:31.280 --> 00:18:32.864 you know that becomes a relatively

NOTE Confidence: 0.33095527

00:18:32.864 --> 00:18:34.919 minor issue in the synoptic reporting,

NOTE Confidence: 0.33095527

00:18:34.920 --> 00:18:37.000 but it is there are,

NOTE Confidence: 0.33095527

00:18:37.000 --> 00:18:39.160 they should not be graded.

NOTE Confidence: 0.33095527

00:18:39.160 --> 00:18:41.400 So I showed you pretty much the classic,

NOTE Confidence: 0.33095527

00:18:41.400 --> 00:18:43.598 if you will, type of HPV cancer.

NOTE Confidence: 0.33095527

00:18:43.600 --> 00:18:46.036 But there's a whole array of morphologies

NOTE Confidence: 0.33095527

00:18:46.036 --> 00:18:48.437 and maybe that'll even evolve over time.

NOTE Confidence: 0.33095527

00:18:48.440 --> 00:18:49.840 I will go through some of these,

NOTE Confidence: 0.33095527

00:18:49.840 --> 00:18:53.213 but by listing hybrid papillary basaloid,

NOTE Confidence: 0.33095527

00:18:53.213 --> 00:18:55.877 you know if you look at The Who,

NOTE Confidence: 0.33095527

00:18:55.880 --> 00:18:58.400 the spindle or sarcoma toid carcinomas

NOTE Confidence: 0.33095527

00:18:58.400 --> 00:19:00.639 or within the spectrum of HPV,

NOTE Confidence: 0.33095527

00:19:00.640 --> 00:19:03.000 I've never seen one that's been HPV positive.

NOTE Confidence: 0.33095527

00:19:03.000 --> 00:19:04.998 I don't know if Manju has ever seen that,

NOTE Confidence: 0.33095527

00:19:05.000 --> 00:19:05.900 but they're usually not.
NOTE Confidence: 0.33095527

00:19:05.900 --> 00:19:07.896 But I guess based on a few cases
NOTE Confidence: 0.33095527

00:19:07.896 --> 00:19:09.080 reported in the literature,
NOTE Confidence: 0.33095527

00:19:09.080 --> 00:19:11.928 they were within this
NOTE Confidence: 0.33095527

00:19:11.928 --> 00:19:13.542 classification Lymphothelial like.
NOTE Confidence: 0.33095527

00:19:13.542 --> 00:19:16.248 So any tumor that is originating
NOTE Confidence: 0.33095527

00:19:16.248 --> 00:19:18.733 outside the nasopharynx that looks
NOTE Confidence: 0.33095527

00:19:18.733 --> 00:19:20.668 like a nasopharyngeal carcinoma
NOTE Confidence: 0.33095527

00:19:20.668 --> 00:19:21.952 previously called lymphopathelioma,
NOTE Confidence: 0.33095527

00:19:21.952 --> 00:19:24.520 but now the grading is different.
NOTE Confidence: 0.33095527

00:19:24.520 --> 00:19:27.040 We use the the terminology lymphopathelial
NOTE Confidence: 0.33095527

00:19:27.040 --> 00:19:29.647 like carcinoma because it looks like
NOTE Confidence: 0.33095527

00:19:29.647 --> 00:19:30.943 those lymphopathelial malignancies
NOTE Confidence: 0.33095527

00:19:30.943 --> 00:19:33.799 of the nasal pharynx and they may
NOTE Confidence: 0.33095527

00:19:33.799 --> 00:19:36.004 originate in the oropharynx and be HPV
NOTE Confidence: 0.33095527

00:19:36.004 --> 00:19:39.225 and not ebb positive and oosquamous

NOTE Confidence: 0.33095527

00:19:39.225 --> 00:19:41.549 and ciliated and neuroendocrine

NOTE Confidence: 0.33095527

00:19:41.549 --> 00:19:43.339 carcinomas can harbor transcription

NOTE Confidence: 0.33095527

00:19:43.339 --> 00:19:45.373 the active virus and we'll come

NOTE Confidence: 0.33095527

00:19:45.373 --> 00:19:47.557 back to that a little bit later.

NOTE Confidence: 0.33095527

00:19:47.560 --> 00:19:49.152 So here's a cancer that has more than

NOTE Confidence: 0.33095527

00:19:49.152 --> 00:19:50.997 just a little bit of characterization.

NOTE Confidence: 0.33095527

00:19:51.000 --> 00:19:52.600 It's got a mixed caronization,

NOTE Confidence: 0.33095527

00:19:52.600 --> 00:19:53.350 non caronization.

NOTE Confidence: 0.33095527

00:19:53.350 --> 00:19:55.600 People have applied the term hybrid.

NOTE Confidence: 0.33095527

00:19:55.600 --> 00:19:58.156 Is it important to give it a specific name?

NOTE Confidence: 0.33095527

00:19:58.160 --> 00:19:58.417 No,

NOTE Confidence: 0.33095527

00:19:58.417 --> 00:20:00.473 it's more important to recognize it as HPV.

NOTE Confidence: 0.33095527

00:20:00.480 --> 00:20:02.160 But I'm showing this to you because

NOTE Confidence: 0.33095527

00:20:02.160 --> 00:20:03.854 there is a spectrum of morphologies

NOTE Confidence: 0.33095527

00:20:03.854 --> 00:20:06.003 that we as pathologists need to be

NOTE Confidence: 0.5546989

00:20:06.064 --> 00:20:07.890 aware of in terms of, you know,
NOTE Confidence: 0.5546989

00:20:07.890 --> 00:20:09.715 what the diagnosis may be
NOTE Confidence: 0.5546989

00:20:09.720 --> 00:20:11.838 and you can see the P16.
NOTE Confidence: 0.5546989

00:20:11.840 --> 00:20:13.884 Tends not to be as positive or
NOTE Confidence: 0.5546989

00:20:13.884 --> 00:20:16.159 impositive in the carrotizing component,
NOTE Confidence: 0.5546989

00:20:16.160 --> 00:20:17.580 but certainly on the periphery
NOTE Confidence: 0.5546989

00:20:17.580 --> 00:20:18.716 and the non carrotizing.
NOTE Confidence: 0.5546989

00:20:18.720 --> 00:20:22.200 And this was backed up by insight to
NOTE Confidence: 0.5546989

00:20:22.200 --> 00:20:24.155 HPV papillary squamous carcinoma.
NOTE Confidence: 0.5546989

00:20:24.155 --> 00:20:27.185 And I use this very specific
NOTE Confidence: 0.5546989

00:20:27.185 --> 00:20:28.920 terminology for this entity.
NOTE Confidence: 0.5546989

00:20:28.920 --> 00:20:31.544 A lot of oral pathologists,
NOTE Confidence: 0.5546989

00:20:31.544 --> 00:20:33.920 and I'm not coming down oral pathologists,
NOTE Confidence: 0.5546989

00:20:33.920 --> 00:20:35.112 they're excellent, you know,
NOTE Confidence: 0.5546989

00:20:35.112 --> 00:20:37.240 and I've learned a lot at AFIP,
NOTE Confidence: 0.5546989

00:20:37.240 --> 00:20:39.280 but from the oral pathologists.

NOTE Confidence: 0.5546989

00:20:39.280 --> 00:20:40.488 But there's a tendency,

NOTE Confidence: 0.5546989

00:20:40.488 --> 00:20:43.081 at least the ones in Florida and maybe

NOTE Confidence: 0.5546989

00:20:43.081 --> 00:20:45.241 elsewhere to apply the term papillar

NOTE Confidence: 0.5546989

00:20:45.241 --> 00:20:46.905 squamous cancer for conventional

NOTE Confidence: 0.5546989

00:20:46.905 --> 00:20:49.110 squamous carcinoma that has papillary

NOTE Confidence: 0.5546989

00:20:49.110 --> 00:20:51.565 features or varrocoid features to me.

NOTE Confidence: 0.5546989

00:20:51.565 --> 00:20:53.440 If I use papillary squamous,

NOTE Confidence: 0.5546989

00:20:53.440 --> 00:20:55.211 I try to limit it to this

NOTE Confidence: 0.5546989

00:20:55.211 --> 00:20:56.999 entity as I will show you,

NOTE Confidence: 0.5546989

00:20:57.000 --> 00:20:58.520 which is an invasive cancer.

NOTE Confidence: 0.5546989

00:20:58.520 --> 00:21:00.476 You don't always see the invasion,

NOTE Confidence: 0.5546989

00:21:00.480 --> 00:21:02.040 which is a little bit problematic.

NOTE Confidence: 0.5546989

00:21:02.040 --> 00:21:04.704 It has an exophytic,

NOTE Confidence: 0.5546989

00:21:04.704 --> 00:21:07.152 papillary or exophytic appearance,

NOTE Confidence: 0.5546989

00:21:07.152 --> 00:21:09.376 fibrovascular cores and it's

NOTE Confidence: 0.5546989

00:21:09.376 --> 00:21:11.600 covered by malignant cells.
NOTE Confidence: 0.5546989

00:21:11.600 --> 00:21:14.001 So here's an example on the extreme
NOTE Confidence: 0.5546989

00:21:14.001 --> 00:21:16.113 left that filiform or papillary
NOTE Confidence: 0.5546989

00:21:16.113 --> 00:21:17.637 growth fibrovascular cores.
NOTE Confidence: 0.5546989

00:21:17.640 --> 00:21:20.034 The next image is a little bit
NOTE Confidence: 0.5546989

00:21:20.034 --> 00:21:22.246 more Oval shaped or exophytic and
NOTE Confidence: 0.5546989

00:21:22.246 --> 00:21:24.472 not as papillary if you will.
NOTE Confidence: 0.5546989

00:21:24.480 --> 00:21:26.520 But irrespective you could see
NOTE Confidence: 0.5546989

00:21:26.520 --> 00:21:28.560 the nature of the cytomorphology.
NOTE Confidence: 0.5546989

00:21:28.560 --> 00:21:31.752 So this is essentially what we might
NOTE Confidence: 0.5546989

00:21:31.752 --> 00:21:34.023 consider full thickness intrapathelial
NOTE Confidence: 0.5546989

00:21:34.023 --> 00:21:36.477 exfoliated carcinoma Insight.
NOTE Confidence: 0.5546989

00:21:36.480 --> 00:21:38.500 Here's a same example.
NOTE Confidence: 0.5546989

00:21:38.500 --> 00:21:40.520 And these are P16.
NOTE Confidence: 0.5546989

00:21:40.520 --> 00:21:42.641 You could see the grains on the
NOTE Confidence: 0.5546989

00:21:42.641 --> 00:21:44.839 right that it's a positive for HPV.

NOTE Confidence: 0.5546989
00:21:44.840 --> 00:21:46.415 So by convention,
NOTE Confidence: 0.5546989
00:21:46.415 --> 00:21:49.040 even the absence of invasion,
NOTE Confidence: 0.5546989
00:21:49.040 --> 00:21:52.040 they're considered to be at
NOTE Confidence: 0.5546989
00:21:52.040 --> 00:21:53.680 least superficially invasive.
NOTE Confidence: 0.5546989
00:21:53.680 --> 00:21:55.760 The majority are T2,
NOTE Confidence: 0.5546989
00:21:55.760 --> 00:21:57.880 which are more deeply invasive.
NOTE Confidence: 0.5546989
00:21:57.880 --> 00:21:59.765 If I'm thinking on biopsy
NOTE Confidence: 0.5546989
00:21:59.765 --> 00:22:01.273 about making this diagnosis,
NOTE Confidence: 0.5546989
00:22:01.280 --> 00:22:02.715 I'm either calling the clinician
NOTE Confidence: 0.5546989
00:22:02.715 --> 00:22:04.769 or looking in the chart to see
NOTE Confidence: 0.5546989
00:22:04.769 --> 00:22:06.461 if the patient already has nodal
NOTE Confidence: 0.5546989
00:22:06.461 --> 00:22:07.865 disease because not infrequently
NOTE Confidence: 0.5546989
00:22:07.865 --> 00:22:09.437 there's no little metastasis.
NOTE Confidence: 0.5546989
00:22:09.440 --> 00:22:11.155 They tend not to metastasize
NOTE Confidence: 0.5546989
00:22:11.155 --> 00:22:12.870 differently if you compare and
NOTE Confidence: 0.5546989

00:22:12.929 --> 00:22:15.077 they're not all of these papillaries,
NOTE Confidence: 0.5546989

00:22:15.080 --> 00:22:17.300 especially out outside of the oropharynx
NOTE Confidence: 0.5546989

00:22:17.300 --> 00:22:19.679 with this morphology will be HPV related.
NOTE Confidence: 0.5546989

00:22:19.680 --> 00:22:23.480 So the HPV ones have a much better
NOTE Confidence: 0.5546989

00:22:23.480 --> 00:22:25.736 prognosis because they're more radio
NOTE Confidence: 0.5546989

00:22:25.736 --> 00:22:27.956 responsive to the HPV independent.
NOTE Confidence: 0.5546989

00:22:27.960 --> 00:22:30.220 Another morphologic subtype is
NOTE Confidence: 0.5546989

00:22:30.220 --> 00:22:32.480 the basaloid squamous cancer.
NOTE Confidence: 0.5546989

00:22:32.480 --> 00:22:34.520 This is a high grade variant
NOTE Confidence: 0.5546989

00:22:34.520 --> 00:22:35.880 of squamous cell carcinoma.
NOTE Confidence: 0.5546989

00:22:35.880 --> 00:22:37.599 It's predominantly comprised
NOTE Confidence: 0.5546989

00:22:37.599 --> 00:22:39.318 of basaloid cells.
NOTE Confidence: 0.5546989

00:22:39.320 --> 00:22:41.295 The squamous component is the
NOTE Confidence: 0.5546989

00:22:41.295 --> 00:22:42.875 usually a minor component.
NOTE Confidence: 0.5546989

00:22:42.880 --> 00:22:45.428 It may be insight to or overt
NOTE Confidence: 0.5546989

00:22:45.428 --> 00:22:46.520 characterization and that

NOTE Confidence: 0.5546989

00:22:46.586 --> 00:22:48.236 varies from case to case.

NOTE Confidence: 0.5546989

00:22:48.240 --> 00:22:50.795 Many of them have just limited caronization,

NOTE Confidence: 0.5546989

00:22:50.800 --> 00:22:53.465 others have more overt carotenization

NOTE Confidence: 0.5546989

00:22:53.465 --> 00:22:56.033 and has a basaloid population.

NOTE Confidence: 0.5546989

00:22:56.033 --> 00:22:59.020 And here you can see a panel

NOTE Confidence: 0.5546989

00:22:59.020 --> 00:23:01.480 of images from the upper left

NOTE Confidence: 0.5546989

00:23:01.480 --> 00:23:04.000 showing a deeply invasive cancer.

NOTE Confidence: 0.5546989

00:23:04.000 --> 00:23:06.600 There is some keratinization there.

NOTE Confidence: 0.5546989

00:23:06.600 --> 00:23:08.490 Typically they have these lobules

NOTE Confidence: 0.5546989

00:23:08.490 --> 00:23:10.873 that are kind of jigsaw shaped

NOTE Confidence: 0.5546989

00:23:10.873 --> 00:23:12.569 with Central Comedotype necrosis

NOTE Confidence: 0.5546989

00:23:12.569 --> 00:23:15.160 seen here and across the panel.

NOTE Confidence: 0.5546989

00:23:15.160 --> 00:23:17.708 I just wanted to point out that

NOTE Confidence: 0.5546989

00:23:17.708 --> 00:23:20.340 these may have what looks like we

NOTE Confidence: 0.5546989

00:23:20.340 --> 00:23:21.880 duplicated basement membrane material.

NOTE Confidence: 0.5546989

00:23:21.880 --> 00:23:24.024 So if you had a biopsy just in
NOTE Confidence: 0.5546989

00:23:24.024 --> 00:23:26.039 this area which is showing this
NOTE Confidence: 0.31925386

00:23:26.040 --> 00:23:28.960 basaloid reduplicated base membrane material,
NOTE Confidence: 0.31925386

00:23:28.960 --> 00:23:31.620 a natural consideration would be a salivary
NOTE Confidence: 0.31925386

00:23:31.620 --> 00:23:34.598 gland tumor such as adenoid cystic carcinoma.
NOTE Confidence: 0.31925386

00:23:34.600 --> 00:23:36.960 The majority of adenoid cystic
NOTE Confidence: 0.31925386

00:23:36.960 --> 00:23:39.320 carcinomas are cytologically low grade.
NOTE Confidence: 0.31925386

00:23:39.320 --> 00:23:42.240 They're basaloid, they're densely cellular,
NOTE Confidence: 0.31925386

00:23:42.240 --> 00:23:44.400 but there's very little pleomorphism,
NOTE Confidence: 0.31925386

00:23:44.400 --> 00:23:47.400 very few mitosis and no necrosis.
NOTE Confidence: 0.31925386

00:23:47.400 --> 00:23:49.120 But the basaloid squamous cancers,
NOTE Confidence: 0.31925386

00:23:49.120 --> 00:23:51.118 if just by like markoscopy chose
NOTE Confidence: 0.31925386

00:23:51.118 --> 00:23:53.120 to make a differential diagnosis,
NOTE Confidence: 0.31925386

00:23:53.120 --> 00:23:55.940 are typically markedly pleomorphic,
NOTE Confidence: 0.31925386

00:23:55.940 --> 00:23:58.760 mitotically active with necrosis
NOTE Confidence: 0.31925386

00:23:58.760 --> 00:24:00.596 and interesting every now and then.

NOTE Confidence: 0.31925386

00:24:00.600 --> 00:24:02.718 Rosettes and palisinin may occur in

NOTE Confidence: 0.31925386

00:24:02.718 --> 00:24:05.418 things that are not nor endocrine

NOTE Confidence: 0.31925386

00:24:05.418 --> 00:24:06.638 olfactory neuroblastoma.

NOTE Confidence: 0.31925386

00:24:06.640 --> 00:24:08.719 This was a case of sinonasal basaloid,

NOTE Confidence: 0.31925386

00:24:08.720 --> 00:24:11.786 squamous that had rosettes and palisinin

NOTE Confidence: 0.31925386

00:24:11.786 --> 00:24:14.999 but nor endocrine markers were negative.

NOTE Confidence: 0.31925386

00:24:15.000 --> 00:24:16.620 The degree of squamous

NOTE Confidence: 0.31925386

00:24:16.620 --> 00:24:17.835 differentiation can vary,

NOTE Confidence: 0.31925386

00:24:17.840 --> 00:24:19.436 you know starting in the left panel,

NOTE Confidence: 0.31925386

00:24:19.440 --> 00:24:22.152 very little, little bit more in the center

NOTE Confidence: 0.31925386

00:24:22.152 --> 00:24:24.758 you know and a lot towards the right.

NOTE Confidence: 0.31925386

00:24:24.760 --> 00:24:27.560 So there is always some component usually

NOTE Confidence: 0.31925386

00:24:27.560 --> 00:24:29.964 of squamous whether it's intrapathelial

NOTE Confidence: 0.31925386

00:24:29.964 --> 00:24:32.236 dysplasia or over carbonization.

NOTE Confidence: 0.31925386

00:24:32.240 --> 00:24:34.403 You may or may not find something

NOTE Confidence: 0.31925386

00:24:34.403 --> 00:24:36.878 nice like this is carcinoma in site 2.
NOTE Confidence: 0.31925386

00:24:36.880 --> 00:24:39.760 And so if you take a tumor that's
NOTE Confidence: 0.31925386

00:24:39.760 --> 00:24:41.845 basaloid reduplicated membrane
NOTE Confidence: 0.31925386

00:24:41.845 --> 00:24:45.320 material that is very neurotrophic,
NOTE Confidence: 0.31925386

00:24:45.320 --> 00:24:48.410 the thought might be an anoid
NOTE Confidence: 0.31925386

00:24:48.410 --> 00:24:49.440 cystic carcinoma,
NOTE Confidence: 0.31925386

00:24:49.440 --> 00:24:51.888 but you can see that in
NOTE Confidence: 0.31925386

00:24:51.888 --> 00:24:53.112 basaloid squamous cancers.
NOTE Confidence: 0.31925386

00:24:53.120 --> 00:24:56.280 So these are like the non keratin cancers,
NOTE Confidence: 0.29567283

00:24:58.680 --> 00:24:59.786 CK56P40P63 positive,
NOTE Confidence: 0.29567283

00:24:59.786 --> 00:25:01.998 neuroendocrine markers negative and
NOTE Confidence: 0.29567283

00:25:01.998 --> 00:25:05.948 if it's related to HPV it will be P16
NOTE Confidence: 0.29567283

00:25:05.948 --> 00:25:09.920 positive and HPV insight 2 positive.
NOTE Confidence: 0.29567283

00:25:09.920 --> 00:25:12.065 It is important to recognize
NOTE Confidence: 0.29567283

00:25:12.065 --> 00:25:14.600 the presence or absence of HPV.
NOTE Confidence: 0.29567283

00:25:14.600 --> 00:25:16.380 Your pharyngeal ones are

NOTE Confidence: 0.29567283

00:25:16.380 --> 00:25:18.160 strongly associated with it.

NOTE Confidence: 0.29567283

00:25:18.160 --> 00:25:20.834 The non pharyngeal ones are typically not,

NOTE Confidence: 0.29567283

00:25:20.840 --> 00:25:23.174 but every now and then can be.

NOTE Confidence: 0.29567283

00:25:23.174 --> 00:25:25.616 The ones that are HPV associated

NOTE Confidence: 0.29567283

00:25:25.616 --> 00:25:29.120 have a much better overall prognosis.

NOTE Confidence: 0.29567283

00:25:29.120 --> 00:25:30.996 So if you're ever confronted with this,

NOTE Confidence: 0.29567283

00:25:31.000 --> 00:25:33.718 if you do have neck pathology

NOTE Confidence: 0.29567283

00:25:33.718 --> 00:25:35.077 irrespective of location,

NOTE Confidence: 0.29567283

00:25:35.080 --> 00:25:37.438 it's always important to exclude the

NOTE Confidence: 0.29567283

00:25:37.438 --> 00:25:40.267 possibility then it might be HPV related

NOTE Confidence: 0.29567283

00:25:40.267 --> 00:25:42.637 because it directly relates to prognosis.

NOTE Confidence: 0.29567283

00:25:42.640 --> 00:25:46.730 Is a nice paper by Bill Westra

NOTE Confidence: 0.29567283

00:25:46.730 --> 00:25:49.710 showing the significant difference

NOTE Confidence: 0.29567283

00:25:49.710 --> 00:25:53.300 in survival whether it's HPV positive

NOTE Confidence: 0.29567283

00:25:53.300 --> 00:25:56.245 or HPV negative and and I just get

NOTE Confidence: 0.29567283

00:25:56.245 --> 00:25:58.319 ahead a little bit ahead of myself.
NOTE Confidence: 0.29567283

00:25:58.320 --> 00:26:01.365 P6 clean alone is not diagnostic for
NOTE Confidence: 0.29567283

00:26:01.365 --> 00:26:04.757 HPV for the presence of HPV virus.
NOTE Confidence: 0.29567283

00:26:04.760 --> 00:26:08.608 So you need we need to be careful
NOTE Confidence: 0.29567283

00:26:08.608 --> 00:26:11.184 about using P16 just to complete this
NOTE Confidence: 0.29567283

00:26:11.184 --> 00:26:12.960 story based Lloyd's claim is here's
NOTE Confidence: 0.29567283

00:26:13.014 --> 00:26:15.009 an example where there is what looks
NOTE Confidence: 0.29567283

00:26:15.009 --> 00:26:17.119 like we duplicated base membrane material,
NOTE Confidence: 0.29567283

00:26:17.120 --> 00:26:18.266 there is necrosis,
NOTE Confidence: 0.29567283

00:26:18.266 --> 00:26:19.794 there is nuclear pleadomorphism.
NOTE Confidence: 0.29567283

00:26:19.800 --> 00:26:21.835 Generally that's unusual and anoid
NOTE Confidence: 0.29567283

00:26:21.835 --> 00:26:25.167 cystic but it can occur so this might
NOTE Confidence: 0.29567283

00:26:25.167 --> 00:26:27.202 engender consideration And then the
NOTE Confidence: 0.29567283

00:26:27.202 --> 00:26:29.917 tumor is diffusely Sox 10 positive.
NOTE Confidence: 0.29567283

00:26:29.920 --> 00:26:32.328 So the tox 10 if you're not familiar
NOTE Confidence: 0.29567283

00:26:32.328 --> 00:26:35.158 is an excellent myopathelial marker.

NOTE Confidence: 0.29567283

00:26:35.160 --> 00:26:38.070 Anoid cystic carcinoma is predominantly

NOTE Confidence: 0.29567283

00:26:38.070 --> 00:26:40.398 A myopathelial derived tumor.

NOTE Confidence: 0.29567283

00:26:40.400 --> 00:26:43.120 So if you see this and you do a Sox 10,

NOTE Confidence: 0.29567283

00:26:43.120 --> 00:26:45.376 the natural thought could be it's

NOTE Confidence: 0.29567283

00:26:45.376 --> 00:26:46.880 an anoid cystic cancer.

NOTE Confidence: 0.29567283

00:26:46.880 --> 00:26:47.253 Well,

NOTE Confidence: 0.29567283

00:26:47.253 --> 00:26:50.622 we need to be aware that Sox 10 can

NOTE Confidence: 0.29567283

00:26:50.622 --> 00:26:52.914 be seen and is seen consistently

NOTE Confidence: 0.29567283

00:26:52.914 --> 00:26:54.600 in basaloid squamous cancer.

NOTE Confidence: 0.29567283

00:26:54.600 --> 00:26:55.316 Why is that important?

NOTE Confidence: 0.29567283

00:26:55.316 --> 00:26:56.800 We want to make the right diagnosis.

NOTE Confidence: 0.29567283

00:26:56.800 --> 00:26:59.328 So if you think about that then you

NOTE Confidence: 0.29567283

00:26:59.328 --> 00:27:02.019 reflex the HPV and it's positive the

NOTE Confidence: 0.29567283

00:27:02.019 --> 00:27:04.009 patient potentially has a better

NOTE Confidence: 0.29567283

00:27:04.083 --> 00:27:05.319 overall prognosis.

NOTE Confidence: 0.29567283

00:27:05.320 --> 00:27:07.854 The last of this group of morphologies
NOTE Confidence: 0.29567283

00:27:07.854 --> 00:27:10.605 that I wanted to show is the
NOTE Confidence: 0.29567283

00:27:10.605 --> 00:27:11.799 endosquamous or ciliated.
NOTE Confidence: 0.29567283

00:27:11.800 --> 00:27:12.468 You know,
NOTE Confidence: 0.29567283

00:27:12.468 --> 00:27:14.806 when I was training and for many
NOTE Confidence: 0.29567283

00:27:14.806 --> 00:27:16.655 years after we were taught,
NOTE Confidence: 0.29567283

00:27:16.655 --> 00:27:18.480 anything that's ciliated is benign.
NOTE Confidence: 0.29567283

00:27:18.480 --> 00:27:20.034 So we know that's not true anymore.
NOTE Confidence: 0.29567283

00:27:20.040 --> 00:27:21.840 So if you look at the left panel,
NOTE Confidence: 0.29567283

00:27:21.840 --> 00:27:24.066 there's a separation on the extreme
NOTE Confidence: 0.29567283

00:27:24.066 --> 00:27:27.049 left of a glandular lesion and on the
NOTE Confidence: 0.29567283

00:27:27.049 --> 00:27:29.191 right non glandular but more solid.
NOTE Confidence: 0.29567283

00:27:29.200 --> 00:27:31.876 This that is a combined anasquamous
NOTE Confidence: 0.29567283

00:27:31.880 --> 00:27:34.049 and on the right I don't know how well
NOTE Confidence: 0.29567283

00:27:34.049 --> 00:27:37.056 IT projects, but there's a basaloid,
NOTE Confidence: 0.29567283

00:27:37.056 --> 00:27:39.776 malignant basaloid component both in

NOTE Confidence: 0.29567283

00:27:39.776 --> 00:27:42.210 the this area more solid and this is

NOTE Confidence: 0.29567283

00:27:42.210 --> 00:27:44.597 the it's a little bit cystic there,

NOTE Confidence: 0.29567283

00:27:44.600 --> 00:27:46.358 but this one has the cilia.

NOTE Confidence: 0.29567283

00:27:46.360 --> 00:27:50.040 So that's the ciliated ananosquamous

NOTE Confidence: 0.29567283

00:27:50.040 --> 00:27:53.272 and I don't know how well IT projects

NOTE Confidence: 0.29567283

00:27:53.272 --> 00:27:56.300 to P16 highlights the cilia and

NOTE Confidence: 0.29567283

00:27:56.300 --> 00:27:59.075 these can be occult primaries,

NOTE Confidence: 0.29567283

00:27:59.080 --> 00:28:00.164 metastatic in the neck.

NOTE Confidence: 0.29567283

00:28:00.164 --> 00:28:02.155 So if you're not aware of this

NOTE Confidence: 0.29567283

00:28:02.155 --> 00:28:03.675 morphology and you see this,

NOTE Confidence: 0.29567283

00:28:03.680 --> 00:28:04.952 you might think you know this

NOTE Confidence: 0.29567283

00:28:04.952 --> 00:28:06.600 is not an HPV related cancer.

NOTE Confidence: 0.29567283

00:28:06.600 --> 00:28:08.760 But if you did the HPV in site too,

NOTE Confidence: 0.29567283

00:28:08.760 --> 00:28:11.650 it would be positive neurendocrine

NOTE Confidence: 0.29567283

00:28:11.650 --> 00:28:13.450 carcinomas and that terminology

NOTE Confidence: 0.29567283

00:28:13.450 --> 00:28:15.700 only includes small cell and
NOTE Confidence: 0.36701405

00:28:15.770 --> 00:28:16.440 large cell.
NOTE Confidence: 0.36701405

00:28:16.440 --> 00:28:18.440 It's not a neuroendocrine tumor.
NOTE Confidence: 0.36701405

00:28:18.440 --> 00:28:20.316 So neuroendocrine carcinoma and
NOTE Confidence: 0.36701405

00:28:20.316 --> 00:28:22.661 attempt to classify these across
NOTE Confidence: 0.36701405

00:28:22.661 --> 00:28:24.880 the spectrum of organ sites.
NOTE Confidence: 0.36701405

00:28:24.880 --> 00:28:27.160 Neuroendocrine carcinoma speaks to small cell,
NOTE Confidence: 0.36701405

00:28:27.160 --> 00:28:30.030 large cell in the head and neck
NOTE Confidence: 0.36701405

00:28:30.030 --> 00:28:31.820 particularly there is a subset that
NOTE Confidence: 0.36701405

00:28:31.820 --> 00:28:33.997 are HPV related and there's about four
NOTE Confidence: 0.36701405

00:28:33.997 --> 00:28:36.193 articles in the literature collating them.
NOTE Confidence: 0.36701405

00:28:36.200 --> 00:28:38.438 There's about 19 cases you know.
NOTE Confidence: 0.36701405

00:28:38.440 --> 00:28:40.372 Many of them when the primaries
NOTE Confidence: 0.36701405

00:28:40.372 --> 00:28:42.160 identified is in the tonsil,
NOTE Confidence: 0.36701405

00:28:42.160 --> 00:28:44.752 the base of the tongue, many of them
NOTE Confidence: 0.36701405

00:28:44.752 --> 00:28:47.440 presented as occult primaries in the neck.

NOTE Confidence: 0.36701405

00:28:47.440 --> 00:28:50.400 It's important to recognize these

NOTE Confidence: 0.36701405

00:28:50.400 --> 00:28:53.196 has got a high mortality rate.

NOTE Confidence: 0.36701405

00:28:53.200 --> 00:28:56.756 So unlike any other HPV related cancer,

NOTE Confidence: 0.36701405

00:28:56.760 --> 00:28:58.692 this is the exception to the rule

NOTE Confidence: 0.36701405

00:28:58.692 --> 00:29:00.803 in terms of being radio responsive

NOTE Confidence: 0.36701405

00:29:00.803 --> 00:29:02.833 and having a better prognosis.

NOTE Confidence: 0.36701405

00:29:02.840 --> 00:29:06.240 So irrespective of the presence of the virus,

NOTE Confidence: 0.36701405

00:29:06.240 --> 00:29:09.600 these are bad actors and I'll try to

NOTE Confidence: 0.36701405

00:29:09.600 --> 00:29:11.679 explain why that is in a little bit.

NOTE Confidence: 0.36701405

00:29:11.680 --> 00:29:14.228 So just some examples of that submucosal

NOTE Confidence: 0.36701405

00:29:14.228 --> 00:29:15.800 tumor with trabecular growth,

NOTE Confidence: 0.36701405

00:29:15.800 --> 00:29:17.704 it has some of the growth pattern of

NOTE Confidence: 0.36701405

00:29:17.704 --> 00:29:19.078 a neuroendocrine tumor on the right.

NOTE Confidence: 0.36701405

00:29:19.080 --> 00:29:22.720 The small round cell malignancy that that

NOTE Confidence: 0.36701405

00:29:22.720 --> 00:29:25.912 will be part of a broad differential

NOTE Confidence: 0.36701405

00:29:25.912 --> 00:29:28.080 with individual cell necrosis,
NOTE Confidence: 0.36701405

00:29:28.080 --> 00:29:31.435 cytocarinate, not CK 5-6 but Cam 5.2.
NOTE Confidence: 0.36701405

00:29:31.435 --> 00:29:33.080 I don't know how well IT projects.
NOTE Confidence: 0.36701405

00:29:33.080 --> 00:29:34.980 It's usually a paranuclear dot
NOTE Confidence: 0.36701405

00:29:34.980 --> 00:29:36.360 like staining pattern,
NOTE Confidence: 0.36701405

00:29:36.360 --> 00:29:38.860 synaptifies and cormoran and insm
NOTE Confidence: 0.36701405

00:29:38.860 --> 00:29:41.743 1 positive and the the markers
NOTE Confidence: 0.36701405

00:29:41.743 --> 00:29:44.212 that are associated with the non
NOTE Confidence: 0.36701405

00:29:44.212 --> 00:29:45.676 Karanisin carcinoma are negative.
NOTE Confidence: 0.36701405

00:29:45.680 --> 00:29:47.648 Now in some of these reports
NOTE Confidence: 0.36701405

00:29:47.648 --> 00:29:49.855 there was a commingling of the
NOTE Confidence: 0.36701405

00:29:49.855 --> 00:29:51.499 non karatinizing with squamous
NOTE Confidence: 0.36701405

00:29:51.499 --> 00:29:53.840 differentiation and the NOR endocrine.
NOTE Confidence: 0.36701405

00:29:53.840 --> 00:29:55.048 So in those reports,
NOTE Confidence: 0.36701405

00:29:55.048 --> 00:29:57.202 there was a mixture of cells that
NOTE Confidence: 0.36701405

00:29:57.202 --> 00:30:00.108 were CK56 and P40P63 positive

NOTE Confidence: 0.36701405

00:30:00.108 --> 00:30:01.478 and others that were not.

NOTE Confidence: 0.59395945

00:30:04.000 --> 00:30:06.541 And here's an example of that tumor

NOTE Confidence: 0.59395945

00:30:06.541 --> 00:30:08.920 showing P16 and the HPV positive.

NOTE Confidence: 0.59395945

00:30:08.920 --> 00:30:12.764 So why is it that those tumors that are

NOTE Confidence: 0.59395945

00:30:12.764 --> 00:30:16.120 HPV positive tend to be radio sensitive,

NOTE Confidence: 0.59395945

00:30:16.120 --> 00:30:18.340 whereas the independent ones that

NOTE Confidence: 0.59395945

00:30:18.340 --> 00:30:20.560 include neuroendocrine tumors are not.

NOTE Confidence: 0.59395945

00:30:20.560 --> 00:30:23.134 So it relates to the cell cycle and where

NOTE Confidence: 0.59395945

00:30:23.134 --> 00:30:25.673 in the cell cycle those tumor cells are

NOTE Confidence: 0.59395945

00:30:25.673 --> 00:30:28.238 in terms of their radio sensitivity.

NOTE Confidence: 0.59395945

00:30:28.240 --> 00:30:31.000 So in this quadrant in the M phase

NOTE Confidence: 0.59395945

00:30:31.000 --> 00:30:33.285 or mitotic phase are the cells

NOTE Confidence: 0.59395945

00:30:33.285 --> 00:30:35.160 of the HPV related cancer,

NOTE Confidence: 0.59395945

00:30:35.160 --> 00:30:37.628 their chromatin is condensed,

NOTE Confidence: 0.59395945

00:30:37.628 --> 00:30:39.479 they're more targetable.

NOTE Confidence: 0.59395945

00:30:39.480 --> 00:30:42.192 There's other factors related in this
NOTE Confidence: 0.59395945

00:30:42.192 --> 00:30:44.725 in terms of microenvironment and P53,
NOTE Confidence: 0.59395945

00:30:44.725 --> 00:30:46.950 but in simplistic terms because
NOTE Confidence: 0.59395945

00:30:46.950 --> 00:30:49.948 they're in the M phase and their
NOTE Confidence: 0.59395945

00:30:49.948 --> 00:30:51.718 chromatin is condensed and made,
NOTE Confidence: 0.59395945

00:30:51.720 --> 00:30:53.640 the more targetable and
NOTE Confidence: 0.59395945

00:30:53.640 --> 00:30:55.080 responsive to radiation.
NOTE Confidence: 0.59395945

00:30:55.080 --> 00:30:58.041 Conversely in the S phase or synthesis
NOTE Confidence: 0.59395945

00:30:58.041 --> 00:31:00.906 phase are the non for the HPV
NOTE Confidence: 0.59395945

00:31:00.906 --> 00:31:02.594 independent and neurentocrine cancers,
NOTE Confidence: 0.59395945

00:31:02.600 --> 00:31:05.240 their chromatin is more widely dispersed,
NOTE Confidence: 0.59395945

00:31:05.240 --> 00:31:09.350 less amenable to targetable by by
NOTE Confidence: 0.59395945

00:31:09.350 --> 00:31:12.020 radiation and and therefore that
NOTE Confidence: 0.59395945

00:31:12.020 --> 00:31:14.495 in part explains the differential
NOTE Confidence: 0.59395945

00:31:14.495 --> 00:31:17.677 in terms of response to treatment.
NOTE Confidence: 0.59395945

00:31:17.680 --> 00:31:20.200 So even if the neurentocrine has HPV,

NOTE Confidence: 0.59395945
00:31:20.200 --> 00:31:22.720 it still falls within this S phase
NOTE Confidence: 0.59395945
00:31:22.720 --> 00:31:25.598 and is less of a targetable agent.
NOTE Confidence: 0.59395945
00:31:25.600 --> 00:31:26.235 OK,
NOTE Confidence: 0.59395945
00:31:26.235 --> 00:31:29.410 shifting gears almost back to
NOTE Confidence: 0.59395945
00:31:29.410 --> 00:31:30.680 basic Histology.
NOTE Confidence: 0.59395945
00:31:30.680 --> 00:31:32.880 This is the reticulated epithelium.
NOTE Confidence: 0.59395945
00:31:32.880 --> 00:31:35.196 Can't see it at this magnification,
NOTE Confidence: 0.59395945
00:31:35.200 --> 00:31:38.248 but here is the surface squamous
NOTE Confidence: 0.59395945
00:31:38.248 --> 00:31:40.400 epithelium and it's a transition zone,
NOTE Confidence: 0.59395945
00:31:40.400 --> 00:31:42.155 not unlike the transition zone
NOTE Confidence: 0.59395945
00:31:42.155 --> 00:31:43.559 in the urban cervix,
NOTE Confidence: 0.59395945
00:31:43.560 --> 00:31:47.508 except the transition here is to this
NOTE Confidence: 0.59395945
00:31:47.508 --> 00:31:49.960 reticulated epithelium and former
NOTE Confidence: 0.59395945
00:31:49.960 --> 00:31:52.600 terminologies or lympho epithelium.
NOTE Confidence: 0.59395945
00:31:52.600 --> 00:31:53.972 This you don't see,
NOTE Confidence: 0.59395945

00:31:53.972 --> 00:31:57.160 and I didn't have a higher magnification,
NOTE Confidence: 0.59395945

00:31:57.160 --> 00:32:00.544 but the cohesiveness and
NOTE Confidence: 0.59395945

00:32:00.544 --> 00:32:02.236 intercellular connections,
NOTE Confidence: 0.59395945

00:32:02.240 --> 00:32:04.670 desmosomes that you see in the
NOTE Confidence: 0.59395945

00:32:04.670 --> 00:32:06.290 surface epithelium are completely
NOTE Confidence: 0.59395945

00:32:06.359 --> 00:32:08.639 gone in this reticulated epithelium.
NOTE Confidence: 0.59395945

00:32:08.640 --> 00:32:10.780 That's why it's more permeated
NOTE Confidence: 0.59395945

00:32:10.780 --> 00:32:11.636 by lymphocytes,
NOTE Confidence: 0.59395945

00:32:11.640 --> 00:32:14.805 plasma cells and antigen processing
NOTE Confidence: 0.59395945

00:32:14.805 --> 00:32:17.276 cells and just to show you that.
NOTE Confidence: 0.59395945

00:32:17.280 --> 00:32:19.380 And then these are diffusely
NOTE Confidence: 0.59395945

00:32:19.380 --> 00:32:20.640 carried and positive.
NOTE Confidence: 0.59395945

00:32:20.640 --> 00:32:24.735 So why is this epithelium and this
NOTE Confidence: 0.59395945

00:32:24.735 --> 00:32:27.960 location the target area for HPV?
NOTE Confidence: 0.59395945

00:32:27.960 --> 00:32:29.400 So there are many theories.
NOTE Confidence: 0.59395945

00:32:29.400 --> 00:32:32.396 One is the permeability of this epithelium

NOTE Confidence: 0.59395945

00:32:32.396 --> 00:32:35.679 makes it more susceptible to infection.

NOTE Confidence: 0.59395945

00:32:35.680 --> 00:32:37.984 Some people claim that the deep

NOTE Confidence: 0.59395945

00:32:37.984 --> 00:32:40.394 and vagination of the ***** make

NOTE Confidence: 0.59395945

00:32:40.394 --> 00:32:42.998 it a excellent reservoir for HPV,

NOTE Confidence: 0.59395945

00:32:43.000 --> 00:32:44.536 and that's probably true.

NOTE Confidence: 0.59395945

00:32:44.536 --> 00:32:46.456 But arguably the most important

NOTE Confidence: 0.59395945

00:32:46.456 --> 00:32:48.090 thing is immunity.

NOTE Confidence: 0.59395945

00:32:48.090 --> 00:32:51.840 This epithelium is PDL 1 positive.

NOTE Confidence: 0.59395945

00:32:51.840 --> 00:32:54.156 The presence of PDL 1 suppresses

NOTE Confidence: 0.59395945

00:32:54.156 --> 00:32:55.314 T cell response,

NOTE Confidence: 0.59395945

00:32:55.320 --> 00:32:58.236 which in turn allows for persistence

NOTE Confidence: 0.59395945

00:32:58.236 --> 00:33:02.174 of HPV and allowing for the HPV and

NOTE Confidence: 0.59395945

00:33:02.174 --> 00:33:05.036 the immortalization of cells to cancers

NOTE Confidence: 0.59395945

00:33:05.126 --> 00:33:09.012 to be under evade immune surveillance.

NOTE Confidence: 0.59395945

00:33:09.012 --> 00:33:12.156 So it's a combination of regions,

NOTE Confidence: 0.59395945

00:33:12.160 --> 00:33:15.280 but likely the most cogent one is this,
NOTE Confidence: 0.59395945

00:33:15.280 --> 00:33:16.114 you know,
NOTE Confidence: 0.59395945

00:33:16.114 --> 00:33:19.033 the PDL one and the immune suppression.
NOTE Confidence: 0.59395945

00:33:19.040 --> 00:33:21.476 This very nice paper by Bill Westra.
NOTE Confidence: 0.59395945

00:33:21.480 --> 00:33:23.400 If you don't follow the literature,
NOTE Confidence: 0.59395945

00:33:23.400 --> 00:33:25.948 you know Bill is one of the
NOTE Confidence: 0.59395945

00:33:25.948 --> 00:33:27.562 original authors on many
NOTE Confidence: 0.59395945

00:33:27.562 --> 00:33:29.757 papers of identifying HPV,
NOTE Confidence: 0.59395945

00:33:29.760 --> 00:33:31.836 including the very first one that
NOTE Confidence: 0.59395945

00:33:31.836 --> 00:33:34.059 showed A cause and effect between
NOTE Confidence: 0.59395945

00:33:34.059 --> 00:33:36.357 the can't the virus and cancer.
NOTE Confidence: 0.59395945

00:33:36.360 --> 00:33:39.044 But this is a nice diagram diagrammatic
NOTE Confidence: 0.59395945

00:33:39.044 --> 00:33:41.954 depiction of this reticulated epithelium.
NOTE Confidence: 0.59395945

00:33:41.960 --> 00:33:43.106 There's a loss,
NOTE Confidence: 0.59395945

00:33:43.106 --> 00:33:44.634 there's no intercellular connections,
NOTE Confidence: 0.59395945

00:33:44.640 --> 00:33:45.789 It's very permeable.

NOTE Confidence: 0.59395945

00:33:45.789 --> 00:33:48.470 You can see even in this diagram

NOTE Confidence: 0.48753956

00:33:48.545 --> 00:33:51.797 the lymphocytes and antigen processing cells.

NOTE Confidence: 0.48753956

00:33:51.800 --> 00:33:53.330 The other component of this is

NOTE Confidence: 0.48753956

00:33:53.330 --> 00:33:55.280 the fact that in this epithelium,

NOTE Confidence: 0.48753956

00:33:55.280 --> 00:33:56.798 unlike other epithelium,

NOTE Confidence: 0.48753956

00:33:56.798 --> 00:33:59.834 there are lymphatics and vascular spaces.

NOTE Confidence: 0.48753956

00:33:59.840 --> 00:34:02.360 So when you see a tumor that looks like this,

NOTE Confidence: 0.48753956

00:34:02.360 --> 00:34:04.726 that's completely what we might in term

NOTE Confidence: 0.48753956

00:34:04.726 --> 00:34:07.009 carcinoma in site 2 with no violation

NOTE Confidence: 0.48753956

00:34:07.009 --> 00:34:09.289 of the base membrane because of that

NOTE Confidence: 0.48753956

00:34:09.289 --> 00:34:11.707 permeability and because of the intra

NOTE Confidence: 0.48753956

00:34:11.707 --> 00:34:13.728 epithelial lymphatics and vascular spaces.

NOTE Confidence: 0.48753956

00:34:13.728 --> 00:34:16.556 This could be the solinitis for the

NOTE Confidence: 0.48753956

00:34:16.556 --> 00:34:19.120 cancer that gives rise to metastasis,

NOTE Confidence: 0.48753956

00:34:19.120 --> 00:34:20.938 very tiny primary,

NOTE Confidence: 0.48753956

00:34:20.938 --> 00:34:22.756 multiple neck nodes.
NOTE Confidence: 0.48753956

00:34:22.760 --> 00:34:25.700 And in that original graph I showed
NOTE Confidence: 0.48753956

00:34:25.700 --> 00:34:27.598 between comparing and contrasting
NOTE Confidence: 0.48753956

00:34:27.598 --> 00:34:29.838 HPV positive HPV negative,
NOTE Confidence: 0.48753956

00:34:29.840 --> 00:34:32.283 the HPV positive cancers tend to be
NOTE Confidence: 0.48753956

00:34:32.283 --> 00:34:34.598 smaller tumors with a higher end stage,
NOTE Confidence: 0.48753956

00:34:34.600 --> 00:34:38.520 many more positive nodes.
NOTE Confidence: 0.48753956

00:34:38.520 --> 00:34:41.520 So relative to this epithelium,
NOTE Confidence: 0.48753956

00:34:41.520 --> 00:34:44.960 which as far as I know is unique in the body,
NOTE Confidence: 0.48753956

00:34:44.960 --> 00:34:46.760 we never applied the term carcinoma.
NOTE Confidence: 0.48753956

00:34:46.760 --> 00:34:49.118 Insight to how often do you see a tumor
NOTE Confidence: 0.48753956

00:34:49.118 --> 00:34:51.107 that's relegated to what we might
NOTE Confidence: 0.48753956

00:34:51.107 --> 00:34:53.080 consider the the insight to component.
NOTE Confidence: 0.48753956

00:34:53.080 --> 00:34:53.736 It's uncommon,
NOTE Confidence: 0.48753956

00:34:53.736 --> 00:34:56.360 but you can put the whole tonsil through
NOTE Confidence: 0.48753956

00:34:56.427 --> 00:34:58.394 and this might be the only nitus,

NOTE Confidence: 0.48753956

00:34:58.400 --> 00:35:00.740 but that's the primary focus for

NOTE Confidence: 0.48753956

00:35:00.740 --> 00:35:02.710 the metastatic cancer because of

NOTE Confidence: 0.48753956

00:35:02.710 --> 00:35:04.440 the nature of that epithelial.

NOTE Confidence: 0.48753956

00:35:04.440 --> 00:35:09.520 So cap guidelines for HP for P16 testing,

NOTE Confidence: 0.48753956

00:35:09.520 --> 00:35:11.600 these were published in 2018.

NOTE Confidence: 0.48753956

00:35:11.600 --> 00:35:14.560 They're currently undergoing A revision.

NOTE Confidence: 0.48753956

00:35:14.560 --> 00:35:16.270 I'm not sure when they're going

NOTE Confidence: 0.48753956

00:35:16.270 --> 00:35:17.245 to be published,

NOTE Confidence: 0.48753956

00:35:17.245 --> 00:35:20.080 but probably sometime either late this year,

NOTE Confidence: 0.48753956

00:35:20.080 --> 00:35:23.506 which is only another month or so or 2024.

NOTE Confidence: 0.48753956

00:35:23.506 --> 00:35:26.542 But most of the criteria are

NOTE Confidence: 0.48753956

00:35:26.542 --> 00:35:28.826 still applicable and the most

NOTE Confidence: 0.48753956

00:35:28.826 --> 00:35:31.358 important one arguably is the P16.

NOTE Confidence: 0.48753956

00:35:31.360 --> 00:35:33.958 Yes, it's an excellent screening tool.

NOTE Confidence: 0.48753956

00:35:33.960 --> 00:35:35.802 It needs to be nuclear inside

NOTE Confidence: 0.48753956

00:35:35.802 --> 00:35:37.877 a plasmic in at least 70%.

NOTE Confidence: 0.48753956

00:35:37.877 --> 00:35:41.810 So what's 69% and what I mean I personally

NOTE Confidence: 0.48753956

00:35:41.910 --> 00:35:45.128 have a hard time trying to quantitate,

NOTE Confidence: 0.48753956

00:35:45.128 --> 00:35:46.606 you know P67,

NOTE Confidence: 0.48753956

00:35:46.606 --> 00:35:48.888 you know digital pathology and and you

NOTE Confidence: 0.48753956

00:35:48.888 --> 00:35:51.078 know what will be helpful in that.

NOTE Confidence: 0.48753956

00:35:51.080 --> 00:35:52.760 But the point being it's got

NOTE Confidence: 0.48753956

00:35:52.760 --> 00:35:54.479 to be the majority of cells,

NOTE Confidence: 0.48753956

00:35:54.480 --> 00:35:57.240 nuclear and cytoplasm.

NOTE Confidence: 0.48753956

00:35:57.240 --> 00:35:59.998 So P16 is a tumor suppressor gene.

NOTE Confidence: 0.48753956

00:36:00.000 --> 00:36:03.156 When it binds to CDK 4/6,

NOTE Confidence: 0.48753956

00:36:03.160 --> 00:36:05.834 it keeps cycling the one in check,

NOTE Confidence: 0.48753956

00:36:05.840 --> 00:36:08.860 which in turn keeps retinoblastoma

NOTE Confidence: 0.48753956

00:36:08.860 --> 00:36:11.276 in its hypophosphorylated state,

NOTE Confidence: 0.48753956

00:36:11.280 --> 00:36:14.220 which in conjunction with this transcription

NOTE Confidence: 0.48753956

00:36:14.220 --> 00:36:17.239 factor leads to cell cycle arrest.

NOTE Confidence: 0.48753956

00:36:17.240 --> 00:36:19.088 And the reason I'm showing you

NOTE Confidence: 0.48753956

00:36:19.088 --> 00:36:22.116 is I'm not a basic scientist but

NOTE Confidence: 0.48753956

00:36:22.116 --> 00:36:23.835 explains P16 overexpression.

NOTE Confidence: 0.48753956

00:36:23.840 --> 00:36:26.750 So anything that alters retinoblastoma

NOTE Confidence: 0.48753956

00:36:26.750 --> 00:36:29.078 in here it's hyperphosphilated

NOTE Confidence: 0.48753956

00:36:29.080 --> 00:36:31.132 releases that block and so at

NOTE Confidence: 0.48753956

00:36:31.132 --> 00:36:33.400 least the cell cycle progression.

NOTE Confidence: 0.48753956

00:36:33.400 --> 00:36:36.740 There's an inverse relationship between

NOTE Confidence: 0.48753956

00:36:36.740 --> 00:36:39.520 P16 and P53P53 in its normal state,

NOTE Confidence: 0.48753956

00:36:39.520 --> 00:36:43.240 low or no P16 overexpression

NOTE Confidence: 0.48753956

00:36:43.240 --> 00:36:45.340 retinoblastoma in its abnormal

NOTE Confidence: 0.48753956

00:36:45.340 --> 00:36:49.640 state increase PP 16 expression.

NOTE Confidence: 0.48753956

00:36:49.640 --> 00:36:51.560 So getting a little bit ahead of myself,

NOTE Confidence: 0.48753956

00:36:51.560 --> 00:36:53.740 anything that alters retinoblastoma

NOTE Confidence: 0.48753956

00:36:53.740 --> 00:36:58.296 will lead to increase in P16 as we

NOTE Confidence: 0.48753956

00:36:58.296 --> 00:37:00.480 identify immunistic chemical that
NOTE Confidence: 0.48753956

00:37:00.480 --> 00:37:03.252 doesn't mean there's a virus there and
NOTE Confidence: 0.48753956

00:37:03.252 --> 00:37:06.228 that means that P16 cannot in and of
NOTE Confidence: 0.48753956

00:37:06.228 --> 00:37:08.040 itself depending on what you're looking at,
NOTE Confidence: 0.48753956

00:37:08.040 --> 00:37:10.305 be the arbiter in terms
NOTE Confidence: 0.48753956

00:37:10.305 --> 00:37:12.117 of being HPV positive.
NOTE Confidence: 0.48753956

00:37:12.120 --> 00:37:13.104 And here's one example.
NOTE Confidence: 0.48753956

00:37:13.104 --> 00:37:14.880 I'll just start at the top part,
NOTE Confidence: 0.48753956

00:37:14.880 --> 00:37:15.546 the A.
NOTE Confidence: 0.48753956

00:37:15.546 --> 00:37:18.210 So the oncogenic stress on the left is
NOTE Confidence: 0.3477944733333333

00:37:18.292 --> 00:37:21.260 the virus you know impacts on P16
NOTE Confidence: 0.3477944733333333

00:37:21.260 --> 00:37:23.165 through retinoblastoma and P53
NOTE Confidence: 0.3477944733333333

00:37:23.165 --> 00:37:26.315 leads to over expression of P16.
NOTE Confidence: 0.3477944733333333

00:37:26.320 --> 00:37:28.492 In another schematic you could see
NOTE Confidence: 0.3477944733333333

00:37:28.492 --> 00:37:30.639 that the virus infects the cells,
NOTE Confidence: 0.3477944733333333

00:37:30.640 --> 00:37:32.040 makes its way into nucleus.

NOTE Confidence: 0.347794473333333

00:37:32.040 --> 00:37:36.924 Impacts on E6 and E7E7 directly on

NOTE Confidence: 0.347794473333333

00:37:36.924 --> 00:37:40.236 retinoblastoma increased in P16.

NOTE Confidence: 0.347794473333333

00:37:40.240 --> 00:37:42.840 But E 6 is not just there and

NOTE Confidence: 0.347794473333333

00:37:42.840 --> 00:37:44.959 doesn't have a negative impact.

NOTE Confidence: 0.347794473333333

00:37:44.960 --> 00:37:48.952 It impacts on P53 and also on maintaining

NOTE Confidence: 0.347794473333333

00:37:48.952 --> 00:37:51.760 telomerase activity in the infected cell,

NOTE Confidence: 0.347794473333333

00:37:51.760 --> 00:37:55.720 which keeps telomerase length intact,

NOTE Confidence: 0.347794473333333

00:37:55.720 --> 00:37:59.199 which allows for immortalization of the cell.

NOTE Confidence: 0.347794473333333

00:37:59.200 --> 00:38:02.032 So both retinoblastoma the E7 and

NOTE Confidence: 0.347794473333333

00:38:02.032 --> 00:38:05.208 the E6 by different mechanisms lead

NOTE Confidence: 0.347794473333333

00:38:05.208 --> 00:38:08.198 to immortalization of the cell.

NOTE Confidence: 0.347794473333333

00:38:08.200 --> 00:38:10.958 So back to P16. It's widely available.

NOTE Confidence: 0.347794473333333

00:38:10.960 --> 00:38:13.312 It's easy to interpret.

NOTE Confidence: 0.347794473333333

00:38:13.312 --> 00:38:16.252 It is considered a surrogate

NOTE Confidence: 0.347794473333333

00:38:16.252 --> 00:38:18.140 marker for HPV 16.

NOTE Confidence: 0.347794473333333

00:38:18.140 --> 00:38:20.840 We can do it on psychology,
NOTE Confidence: 0.3477944733333333

00:38:20.840 --> 00:38:22.880 we can do it on tissue,
NOTE Confidence: 0.3477944733333333

00:38:22.880 --> 00:38:25.455 and it is considered reliable
NOTE Confidence: 0.3477944733333333

00:38:25.455 --> 00:38:28.455 but not uniformly predictor of a
NOTE Confidence: 0.3477944733333333

00:38:28.455 --> 00:38:30.880 carcinoma rising in the oropharynx.
NOTE Confidence: 0.3477944733333333

00:38:30.880 --> 00:38:32.320 So I don't think anybody,
NOTE Confidence: 0.3477944733333333

00:38:32.320 --> 00:38:33.785 if you're a pathologist and
NOTE Confidence: 0.3477944733333333

00:38:33.785 --> 00:38:34.957 there's no brown stain,
NOTE Confidence: 0.3477944733333333

00:38:34.960 --> 00:38:36.400 would think that's a positive stain.
NOTE Confidence: 0.3477944733333333

00:38:36.400 --> 00:38:39.680 It's a dead negative stain.
NOTE Confidence: 0.3477944733333333

00:38:39.680 --> 00:38:41.018 I'm sure in this group you
NOTE Confidence: 0.3477944733333333

00:38:41.018 --> 00:38:42.400 would not call that positive,
NOTE Confidence: 0.3477944733333333

00:38:42.400 --> 00:38:46.952 but there are people who see any
NOTE Confidence: 0.3477944733333333

00:38:46.952 --> 00:38:50.160 staining and we'll call it P16 positive,
NOTE Confidence: 0.3477944733333333

00:38:50.160 --> 00:38:52.834 seen that in in patient review cases.
NOTE Confidence: 0.3477944733333333

00:38:52.840 --> 00:38:55.000 And I'm not denigrating anybody,

NOTE Confidence: 0.347794473333333
00:38:55.000 --> 00:38:56.400 it's just not understanding
NOTE Confidence: 0.347794473333333
00:38:56.400 --> 00:38:57.800 of that the interpretation.
NOTE Confidence: 0.347794473333333
00:38:57.800 --> 00:38:59.792 So we need to be very rigid not
NOTE Confidence: 0.347794473333333
00:38:59.792 --> 00:39:01.856 only in our diagnostic criteria
NOTE Confidence: 0.347794473333333
00:39:01.856 --> 00:39:03.356 but our interpretation.
NOTE Confidence: 0.347794473333333
00:39:03.360 --> 00:39:05.240 So this is a blush.
NOTE Confidence: 0.347794473333333
00:39:05.240 --> 00:39:08.080 It's not a positive stain.
NOTE Confidence: 0.347794473333333
00:39:08.080 --> 00:39:11.080 That's a positive stain.
NOTE Confidence: 0.347794473333333
00:39:11.080 --> 00:39:13.384 That's not a positive statement, right.
NOTE Confidence: 0.347794473333333
00:39:13.384 --> 00:39:16.060 It's kind of positive, but not strongly.
NOTE Confidence: 0.347794473333333
00:39:16.060 --> 00:39:17.200 There's some nuclear,
NOTE Confidence: 0.347794473333333
00:39:17.200 --> 00:39:18.740 not cytoplasmic and some
NOTE Confidence: 0.347794473333333
00:39:18.740 --> 00:39:20.280 cells are not positive.
NOTE Confidence: 0.347794473333333
00:39:20.280 --> 00:39:22.086 So you might call that equivocal
NOTE Confidence: 0.347794473333333
00:39:22.086 --> 00:39:24.359 because it's not that negative or blush,
NOTE Confidence: 0.347794473333333

00:39:24.360 --> 00:39:25.904 but it's not positive.
NOTE Confidence: 0.3477944733333333

00:39:25.904 --> 00:39:28.220 That's the kind of scenario where
NOTE Confidence: 0.3477944733333333

00:39:28.290 --> 00:39:30.560 you need to confirm with something
NOTE Confidence: 0.3477944733333333

00:39:30.560 --> 00:39:32.480 more sensitive and specific.
NOTE Confidence: 0.3477944733333333

00:39:32.480 --> 00:39:33.720 And you've seen this before,
NOTE Confidence: 0.3477944733333333

00:39:33.720 --> 00:39:36.080 but I just want to point to the bottom here.
NOTE Confidence: 0.3477944733333333

00:39:36.080 --> 00:39:39.320 This E6 and E7 we target by immuno,
NOTE Confidence: 0.3477944733333333

00:39:39.320 --> 00:39:42.230 by insight to hybridization that's the
NOTE Confidence: 0.3477944733333333

00:39:42.230 --> 00:39:47.120 gold standard in in a tumor not the P16.
NOTE Confidence: 0.3477944733333333

00:39:47.120 --> 00:39:48.618 And the reason I mentioned that I
NOTE Confidence: 0.3477944733333333

00:39:48.618 --> 00:39:50.360 would just to show you there's AP 16,
NOTE Confidence: 0.3477944733333333

00:39:50.360 --> 00:39:53.320 you've seen this before.
NOTE Confidence: 0.3477944733333333

00:39:53.320 --> 00:39:55.154 Before I go you to the illustration,
NOTE Confidence: 0.3477944733333333

00:39:55.160 --> 00:39:58.877 the bottom B part is an oncogenic
NOTE Confidence: 0.3477944733333333

00:39:58.877 --> 00:40:01.719 stress that's not HPV related
NOTE Confidence: 0.3477944733333333

00:40:01.720 --> 00:40:04.136 that has altered retinoblastoma.

NOTE Confidence: 0.3477944733333333
00:40:04.136 --> 00:40:07.156 And has led to P16.
NOTE Confidence: 0.3477944733333333
00:40:07.160 --> 00:40:08.640 So it's not HPV related.
NOTE Confidence: 0.3477944733333333
00:40:08.640 --> 00:40:10.600 And the reason I point that out,
NOTE Confidence: 0.3477944733333333
00:40:10.600 --> 00:40:12.456 these cases actually happen.
NOTE Confidence: 0.3477944733333333
00:40:12.456 --> 00:40:15.480 So this is a Periparadid level 2,
NOTE Confidence: 0.3477944733333333
00:40:15.480 --> 00:40:17.800 a typical location for an
NOTE Confidence: 0.3477944733333333
00:40:17.800 --> 00:40:20.120 oropharyngeal cancer to metastasize to.
NOTE Confidence: 0.3477944733333333
00:40:20.120 --> 00:40:22.802 It looks here's the parotid and
NOTE Confidence: 0.3477944733333333
00:40:22.802 --> 00:40:25.234 primary squamous cancers of the
NOTE Confidence: 0.3477944733333333
00:40:25.234 --> 00:40:27.478 parotid are extraordinarily rare.
NOTE Confidence: 0.3477944733333333
00:40:27.480 --> 00:40:29.600 If you ever have a case like that
NOTE Confidence: 0.3477944733333333
00:40:29.600 --> 00:40:31.428 it's likely a cutaneous cancer
NOTE Confidence: 0.3477944733333333
00:40:31.428 --> 00:40:33.076 directly invading the parotid.
NOTE Confidence: 0.3477944733333333
00:40:33.080 --> 00:40:35.088 Or the patient had a history of a
NOTE Confidence: 0.3477944733333333
00:40:35.088 --> 00:40:37.181 had an ex famous cancer somewhere
NOTE Confidence: 0.3477944733333333

00:40:37.181 --> 00:40:39.473 on the face that's now metastatic.
NOTE Confidence: 0.3477944733333333

00:40:39.480 --> 00:40:42.182 So if you remember that thinking about
NOTE Confidence: 0.3477944733333333

00:40:42.182 --> 00:40:44.308 a primary, you know, becomes challenging.
NOTE Confidence: 0.3477944733333333

00:40:44.308 --> 00:40:45.319 Do they occur?
NOTE Confidence: 0.3477944733333333

00:40:45.320 --> 00:40:45.555 Yeah.
NOTE Confidence: 0.3477944733333333

00:40:45.555 --> 00:40:47.670 But you really need to see good evidence of
NOTE Confidence: 0.34844366

00:40:47.720 --> 00:40:49.260 that. Now here's the parotid,
NOTE Confidence: 0.34844366

00:40:49.260 --> 00:40:50.885 There are many intra and
NOTE Confidence: 0.34844366

00:40:50.885 --> 00:40:51.919 periparatal lymph nodes.
NOTE Confidence: 0.34844366

00:40:51.920 --> 00:40:54.594 They do drain the pharynx and you
NOTE Confidence: 0.34844366

00:40:54.594 --> 00:40:56.720 have a non caranoisin cancer and
NOTE Confidence: 0.34844366

00:40:56.720 --> 00:40:59.360 this thing is diffusely P16 positive.
NOTE Confidence: 0.34844366

00:40:59.360 --> 00:41:02.768 So you tell the tell the clinician or
NOTE Confidence: 0.34844366

00:41:02.768 --> 00:41:05.699 radiation oncologist you have a metastatic
NOTE Confidence: 0.34844366

00:41:05.699 --> 00:41:08.840 orpharyngeal P16 positive cancer.
NOTE Confidence: 0.34844366

00:41:08.840 --> 00:41:10.336 They tell the patient,

NOTE Confidence: 0.34844366

00:41:10.336 --> 00:41:12.580 they start you know setting the

NOTE Confidence: 0.34844366

00:41:12.655 --> 00:41:14.525 patient up for targeted therapy

NOTE Confidence: 0.34844366

00:41:14.525 --> 00:41:17.439 except that the HPV is dead negative.

NOTE Confidence: 0.34844366

00:41:17.440 --> 00:41:19.855 So this points out what I've been

NOTE Confidence: 0.34844366

00:41:19.855 --> 00:41:21.240 trying diagrammatically to show.

NOTE Confidence: 0.34844366

00:41:21.240 --> 00:41:24.740 P16 can be over expressed in the

NOTE Confidence: 0.34844366

00:41:24.740 --> 00:41:27.904 absence of virus and about 20 to

NOTE Confidence: 0.34844366

00:41:27.904 --> 00:41:29.704 30% of cutaneous squamous cancers.

NOTE Confidence: 0.34844366

00:41:29.704 --> 00:41:32.150 But this is not the only one

NOTE Confidence: 0.34844366

00:41:32.150 --> 00:41:33.358 can be P16 positive.

NOTE Confidence: 0.34844366

00:41:33.360 --> 00:41:35.999 So really the gold standard and we've

NOTE Confidence: 0.34844366

00:41:35.999 --> 00:41:38.520 moved to doing every single case,

NOTE Confidence: 0.34844366

00:41:38.520 --> 00:41:41.375 even conventional ones with P16

NOTE Confidence: 0.34844366

00:41:41.375 --> 00:41:43.812 and insight and certainly in the

NOTE Confidence: 0.34844366

00:41:43.812 --> 00:41:45.427 presence of a cold metastatic

NOTE Confidence: 0.34844366

00:41:45.427 --> 00:41:46.997 cancer with no known primer,
NOTE Confidence: 0.34844366

00:41:47.000 --> 00:41:49.432 you can't rely solely on the P16 and
NOTE Confidence: 0.34844366

00:41:49.432 --> 00:41:52.101 it has to be backed up by the insight
NOTE Confidence: 0.34844366

00:41:52.101 --> 00:41:54.797 to and in fact I don't even do P16,
NOTE Confidence: 0.34844366

00:41:54.800 --> 00:41:56.431 I go right to the insight to
NOTE Confidence: 0.34844366

00:41:56.431 --> 00:41:57.799 because that's where the money is.
NOTE Confidence: 0.34844366

00:41:57.800 --> 00:41:58.667 So that's negative.
NOTE Confidence: 0.34844366

00:41:58.667 --> 00:42:01.040 I don't care what the P16 look like.
NOTE Confidence: 0.42381656

00:42:04.040 --> 00:42:05.465 What about psychology?
NOTE Confidence: 0.42381656

00:42:05.465 --> 00:42:07.840 Do the same guidelines that
NOTE Confidence: 0.42381656

00:42:07.840 --> 00:42:09.610 70% apply to cytology?
NOTE Confidence: 0.42381656

00:42:09.610 --> 00:42:12.104 And the simple answer is no,
NOTE Confidence: 0.42381656

00:42:12.104 --> 00:42:13.480 there are no guidelines.
NOTE Confidence: 0.42381656

00:42:13.480 --> 00:42:15.200 So here this cell block,
NOTE Confidence: 0.42381656

00:42:15.200 --> 00:42:17.048 you know these tumors could be this
NOTE Confidence: 0.42381656

00:42:17.048 --> 00:42:18.319 occult metastatic in the neck,

NOTE Confidence: 0.42381656
00:42:18.320 --> 00:42:21.554 no known primary, they're P16.
NOTE Confidence: 0.42381656
00:42:21.554 --> 00:42:24.239 How do you interpret P16?
NOTE Confidence: 0.42381656
00:42:24.240 --> 00:42:25.120 You interpret it just on
NOTE Confidence: 0.42381656
00:42:25.120 --> 00:42:26.000 the cells that you have,
NOTE Confidence: 0.42381656
00:42:26.000 --> 00:42:27.758 we don't have the entire lesion.
NOTE Confidence: 0.42381656
00:42:27.760 --> 00:42:29.920 So what's 70% and what is
NOTE Confidence: 0.42381656
00:42:29.920 --> 00:42:32.080 70% mean in this context?
NOTE Confidence: 0.42381656
00:42:32.080 --> 00:42:33.665 And it's very challenging and
NOTE Confidence: 0.42381656
00:42:33.665 --> 00:42:36.030 this is where you know the insight
NOTE Confidence: 0.42381656
00:42:36.030 --> 00:42:37.466 to becomes critical because
NOTE Confidence: 0.42381656
00:42:37.466 --> 00:42:39.520 if you have limited material,
NOTE Confidence: 0.42381656
00:42:39.520 --> 00:42:42.187 you know let's just say 1010 cells
NOTE Confidence: 0.42381656
00:42:42.187 --> 00:42:44.320 that are diagnostic in a cluster,
NOTE Confidence: 0.42381656
00:42:44.320 --> 00:42:45.570 you know and they're positive
NOTE Confidence: 0.42381656
00:42:45.570 --> 00:42:46.320 or they're negative,
NOTE Confidence: 0.42381656

00:42:46.320 --> 00:42:48.590 it doesn't mean that there's
NOTE Confidence: 0.42381656

00:42:48.590 --> 00:42:51.350 not HPV there because they may
NOTE Confidence: 0.42381656

00:42:51.350 --> 00:42:53.756 be very gated response to P16,
NOTE Confidence: 0.42381656

00:42:53.760 --> 00:42:55.720 you know and the insight to HPV
NOTE Confidence: 0.42381656

00:42:55.720 --> 00:42:57.556 could be done on limited material.
NOTE Confidence: 0.42381656

00:42:57.556 --> 00:43:00.374 And as long as you find a single
NOTE Confidence: 0.42381656

00:43:00.374 --> 00:43:02.479 grain and they're more here,
NOTE Confidence: 0.42381656

00:43:02.480 --> 00:43:05.480 it becomes diagnostic or or positive
NOTE Confidence: 0.42381656

00:43:05.480 --> 00:43:08.066 for insight to HPV and diagnostic
NOTE Confidence: 0.42381656

00:43:08.066 --> 00:43:12.350 for an HPV related cancer. OK.
NOTE Confidence: 0.42381656

00:43:12.350 --> 00:43:15.080 We shift gears to the nasal pharynx,
NOTE Confidence: 0.42381656

00:43:15.080 --> 00:43:16.748 and I know conceptually we all
NOTE Confidence: 0.42381656

00:43:16.748 --> 00:43:18.519 know where the nasal pharynx is,
NOTE Confidence: 0.42381656

00:43:18.520 --> 00:43:19.840 but aside from being somewhere
NOTE Confidence: 0.42381656

00:43:19.840 --> 00:43:21.600 in the back of the throat,
NOTE Confidence: 0.42381656

00:43:21.600 --> 00:43:25.028 it actually has to find anatomic location.

NOTE Confidence: 0.42381656

00:43:25.028 --> 00:43:28.066 You know it it borders or butts

NOTE Confidence: 0.42381656

00:43:28.066 --> 00:43:30.635 up to the base of the skull.

NOTE Confidence: 0.42381656

00:43:30.640 --> 00:43:32.878 So cancers originating of nasal pharynx,

NOTE Confidence: 0.42381656

00:43:32.880 --> 00:43:33.852 particularly keratinizing,

NOTE Confidence: 0.42381656

00:43:33.852 --> 00:43:37.254 often kind of invade towards the base

NOTE Confidence: 0.42381656

00:43:37.254 --> 00:43:40.796 of the skull and then they become incurable.

NOTE Confidence: 0.42381656

00:43:40.800 --> 00:43:42.760 It's got a virtual floor in the uvula,

NOTE Confidence: 0.42381656

00:43:42.760 --> 00:43:44.572 so only when we swallow does

NOTE Confidence: 0.42381656

00:43:44.572 --> 00:43:46.240 it have an actual floor.

NOTE Confidence: 0.42381656

00:43:46.240 --> 00:43:48.280 The interior is the opening

NOTE Confidence: 0.42381656

00:43:48.280 --> 00:43:49.912 to the nasal cavity.

NOTE Confidence: 0.42381656

00:43:49.920 --> 00:43:52.128 I just want to point out the lateral

NOTE Confidence: 0.42381656

00:43:52.128 --> 00:43:53.891 wall where most nasopharyngeal

NOTE Confidence: 0.42381656

00:43:53.891 --> 00:43:55.037 carcinomas develop.

NOTE Confidence: 0.42381656

00:43:55.040 --> 00:43:58.197 It's the opening of the Eustachian too.

NOTE Confidence: 0.42381656

00:43:58.200 --> 00:44:00.840 And cancers in this location for
NOTE Confidence: 0.42381656

00:44:00.840 --> 00:44:03.880 some reason like this area that
NOTE Confidence: 0.42381656

00:44:03.880 --> 00:44:06.580 there's a rage raised cartilaginous
NOTE Confidence: 0.42381656

00:44:06.580 --> 00:44:08.552 plate that's posterior to the
NOTE Confidence: 0.42381656

00:44:08.552 --> 00:44:10.342 opening in the Eustachian tube
NOTE Confidence: 0.42381656

00:44:10.342 --> 00:44:11.798 Cancers like to originate.
NOTE Confidence: 0.42381656

00:44:11.800 --> 00:44:14.560 Behind that there's an indentation
NOTE Confidence: 0.42381656

00:44:14.560 --> 00:44:16.027 called fossil Rosenmuel.
NOTE Confidence: 0.42381656

00:44:16.027 --> 00:44:20.200 It tends to push the Eustachian to forward,
NOTE Confidence: 0.42381656

00:44:20.200 --> 00:44:23.278 shuts off the the opening to the ear canal.
NOTE Confidence: 0.42381656

00:44:23.280 --> 00:44:24.336 So anecdotally,
NOTE Confidence: 0.42381656

00:44:24.336 --> 00:44:25.920 unilateral otitis medium
NOTE Confidence: 0.42381656

00:44:25.920 --> 00:44:28.032 responsive to antibiotic therapy,
NOTE Confidence: 0.42381656

00:44:28.040 --> 00:44:29.378 is nasopharyngeal carcinoma.
NOTE Confidence: 0.42381656

00:44:29.378 --> 00:44:30.716 For this reason.
NOTE Confidence: 0.42381656

00:44:30.720 --> 00:44:33.877 So tiny cancer puts the station forward.

NOTE Confidence: 0.42381656

00:44:33.880 --> 00:44:36.480 Wonderful milieu for infection,

NOTE Confidence: 0.42381656

00:44:36.480 --> 00:44:39.080 except there's no infection,

NOTE Confidence: 0.42381656

00:44:39.080 --> 00:44:41.400 but there's otitis media

NOTE Confidence: 0.42381656

00:44:41.400 --> 00:44:43.720 unresponsive to antibiotic therapy.

NOTE Confidence: 0.42381656

00:44:43.720 --> 00:44:47.450 So the classification of nasopharyngeal

NOTE Confidence: 0.42381656

00:44:47.450 --> 00:44:50.320 carcinoma now is 2 broad categories,

NOTE Confidence: 0.42381656

00:44:50.320 --> 00:44:52.060 not 3 keratinizing,

NOTE Confidence: 0.42381656

00:44:52.060 --> 00:44:53.800 well moderately poorly

NOTE Confidence: 0.42381656

00:44:53.800 --> 00:44:56.120 differentiated and non keratinizing,

NOTE Confidence: 0.42381656

00:44:56.120 --> 00:44:58.256 which used to be divided up

NOTE Confidence: 0.42381656

00:44:58.256 --> 00:45:00.280 in WHO two and three.

NOTE Confidence: 0.42381656

00:45:00.280 --> 00:45:03.640 Now it's one differentiated used to

NOTE Confidence: 0.42381656

00:45:03.640 --> 00:45:05.880 be called transitional carcinoma

NOTE Confidence: 0.42381656

00:45:05.880 --> 00:45:08.688 and undifferentiated used to

NOTE Confidence: 0.42381656

00:45:08.688 --> 00:45:10.794 be called lymphobothelioma.

NOTE Confidence: 0.42381656

00:45:10.800 --> 00:45:14.844 Those two morphologies can be
NOTE Confidence: 0.42381656

00:45:14.844 --> 00:45:17.754 identical to HPV related cancers
NOTE Confidence: 0.42381656

00:45:17.760 --> 00:45:20.052 and there is a basaloid squamous
NOTE Confidence: 0.42381656

00:45:20.052 --> 00:45:22.095 carcinoma that of the nasopharynx
NOTE Confidence: 0.42381656

00:45:22.095 --> 00:45:24.280 that can be EBV positive.
NOTE Confidence: 0.42381656

00:45:24.280 --> 00:45:27.480 So just you know compare and contrast chart,
NOTE Confidence: 0.42381656

00:45:27.480 --> 00:45:29.784 you could see that the keratinizing
NOTE Confidence: 0.42381656

00:45:29.784 --> 00:45:31.632 which is weakly associated with
NOTE Confidence: 0.42381656

00:45:31.632 --> 00:45:33.590 EBV which makes it not radio
NOTE Confidence: 0.42381656

00:45:33.590 --> 00:45:34.958 responsive has the worst
NOTE Confidence: 0.30877325

00:45:34.960 --> 00:45:37.260 prognosis but the best terminology
NOTE Confidence: 0.30877325

00:45:37.260 --> 00:45:38.640 well differentiated keratinase,
NOTE Confidence: 0.30877325

00:45:38.640 --> 00:45:40.385 squamous carcinoma sounds like a
NOTE Confidence: 0.30877325

00:45:40.385 --> 00:45:42.631 tumor that's going to do better
NOTE Confidence: 0.30877325

00:45:42.631 --> 00:45:44.391 than an undifferentiated carcinoma
NOTE Confidence: 0.30877325

00:45:44.391 --> 00:45:47.150 except that the non caratizing and

NOTE Confidence: 0.30877325

00:45:47.150 --> 00:45:48.617 undifferentiated strong association

NOTE Confidence: 0.30877325

00:45:48.617 --> 00:45:51.024 with EBV are radio responsive have

NOTE Confidence: 0.30877325

00:45:51.024 --> 00:45:53.160 a better five year survival rate.

NOTE Confidence: 0.30877325

00:45:53.160 --> 00:45:54.880 So we've gone through caratizing,

NOTE Confidence: 0.30877325

00:45:54.880 --> 00:45:56.532 I need to show you but there's

NOTE Confidence: 0.30877325

00:45:56.532 --> 00:45:59.199 this is a dead ringer for a non

NOTE Confidence: 0.30877325

00:45:59.199 --> 00:46:00.719 caratizing carcinoma and oropharynx.

NOTE Confidence: 0.30877325

00:46:00.720 --> 00:46:03.174 It's a non carat nasal pharyngeal

NOTE Confidence: 0.30877325

00:46:03.174 --> 00:46:04.810 carcinoma and non caratizing

NOTE Confidence: 0.30877325

00:46:04.876 --> 00:46:08.160 differentiated it'd be keratin positive,

NOTE Confidence: 0.30877325

00:46:08.160 --> 00:46:09.314 P40P63 positive.

NOTE Confidence: 0.30877325

00:46:09.314 --> 00:46:12.199 Nerner can markers negative but

NOTE Confidence: 0.30877325

00:46:12.200 --> 00:46:14.530 HPV negative and Eber Epstein

NOTE Confidence: 0.30877325

00:46:14.530 --> 00:46:16.394 Barr encoded RNA positive.

NOTE Confidence: 0.33578566

00:46:18.920 --> 00:46:21.080 So those are easy to identify.

NOTE Confidence: 0.33578566

00:46:21.080 --> 00:46:25.124 The less distinguishable if you will,
NOTE Confidence: 0.33578566

00:46:25.124 --> 00:46:28.079 tumor type is the undifferentiated
NOTE Confidence: 0.33578566

00:46:28.080 --> 00:46:30.495 and both of these do not elicit
NOTE Confidence: 0.33578566

00:46:30.495 --> 00:46:32.240 a decimal plastic response.
NOTE Confidence: 0.33578566

00:46:32.240 --> 00:46:34.256 But in this panel you could see the
NOTE Confidence: 0.33578566

00:46:34.256 --> 00:46:36.480 clusters of cells and higher magnification,
NOTE Confidence: 0.33578566

00:46:36.480 --> 00:46:39.080 large nuclei, vesicular coma and
NOTE Confidence: 0.33578566

00:46:39.080 --> 00:46:41.680 prominent nucleoli but very cohesive.
NOTE Confidence: 0.33578566

00:46:41.680 --> 00:46:44.065 But if they sheet out like you see here
NOTE Confidence: 0.33578566

00:46:44.065 --> 00:46:46.278 which may not be identifiable readily,
NOTE Confidence: 0.33578566

00:46:46.280 --> 00:46:48.200 looks like a histiocytic response.
NOTE Confidence: 0.33578566

00:46:48.200 --> 00:46:50.160 But here where they become more obvious
NOTE Confidence: 0.33578566

00:46:50.160 --> 00:46:51.520 because they're more clustered.
NOTE Confidence: 0.33578566

00:46:51.520 --> 00:46:53.864 The differential includes lymphoma
NOTE Confidence: 0.33578566

00:46:53.864 --> 00:46:55.973 and Melanoma. So you know,
NOTE Confidence: 0.33578566

00:46:55.973 --> 00:46:58.444 in anyone case you might think it's cohesive,

NOTE Confidence: 0.33578566

00:46:58.444 --> 00:47:00.558 it's not, it's got to be carcinoma.

NOTE Confidence: 0.33578566

00:47:00.560 --> 00:47:02.396 But I've seen cohesive lesions prove

NOTE Confidence: 0.33578566

00:47:02.396 --> 00:47:04.479 to be Melanoma or even lymphoma.

NOTE Confidence: 0.33578566

00:47:04.480 --> 00:47:06.898 In the most common lymphoma this

NOTE Confidence: 0.33578566

00:47:06.898 --> 00:47:09.520 location is the diffuse large B cell.

NOTE Confidence: 0.33578566

00:47:09.520 --> 00:47:12.000 These are Carrot MP 63 and Ebro positive.

NOTE Confidence: 0.33578566

00:47:12.000 --> 00:47:15.480 So that blocks in the diagnosis.

NOTE Confidence: 0.33578566

00:47:15.480 --> 00:47:18.760 The basaloid is a rare tumor type.

NOTE Confidence: 0.33578566

00:47:18.760 --> 00:47:21.073 I have to have one a couple months ago,

NOTE Confidence: 0.33578566

00:47:21.080 --> 00:47:22.436 so I thought I'd share it.

NOTE Confidence: 0.33578566

00:47:22.440 --> 00:47:25.720 You know, relatively typical nasaloid,

NOTE Confidence: 0.33578566

00:47:25.720 --> 00:47:27.904 squamous carcinoma, morphology,

NOTE Confidence: 0.33578566

00:47:27.904 --> 00:47:29.360 keratin, P63,

NOTE Confidence: 0.33578566

00:47:29.360 --> 00:47:32.104 Sox 10 as I showed you before

NOTE Confidence: 0.33578566

00:47:32.104 --> 00:47:33.280 and Ebro positive.

NOTE Confidence: 0.33578566

00:47:33.280 --> 00:47:35.158 But if I'm looking at this,
NOTE Confidence: 0.33578566

00:47:35.160 --> 00:47:36.920 even if the clinician swears up and down,
NOTE Confidence: 0.33578566

00:47:36.920 --> 00:47:38.720 it's nasal pharynx that's just
NOTE Confidence: 0.33578566

00:47:38.720 --> 00:47:40.520 next to the oral pharynx.
NOTE Confidence: 0.33578566

00:47:40.520 --> 00:47:41.840 So it might be extending back.
NOTE Confidence: 0.33578566

00:47:41.840 --> 00:47:44.264 So it's always important to probably
NOTE Confidence: 0.33578566

00:47:44.264 --> 00:47:48.080 not probably to do HPV to exclude the
NOTE Confidence: 0.33578566

00:47:48.080 --> 00:47:52.360 possibility that this is HPV and not EBV.
NOTE Confidence: 0.33578566

00:47:52.360 --> 00:47:53.998 The cold metastatic cancers in the neck.
NOTE Confidence: 0.33578566

00:47:54.000 --> 00:47:56.639 There's a topographic anatomy on the left.
NOTE Confidence: 0.33578566

00:47:56.640 --> 00:47:59.640 The diagram on the right is from Leon
NOTE Confidence: 0.33578566

00:47:59.640 --> 00:48:03.076 Barnes 3 tone Bible on Hananic Pathology.
NOTE Confidence: 0.33578566

00:48:03.080 --> 00:48:04.064 Unfortunately Doctor Barnes
NOTE Confidence: 0.33578566

00:48:04.064 --> 00:48:06.032 passed away a few years ago.
NOTE Confidence: 0.33578566

00:48:06.040 --> 00:48:07.760 He had retired years ago.
NOTE Confidence: 0.33578566

00:48:07.760 --> 00:48:10.496 So I think this is a 2010 was the 3rd

NOTE Confidence: 0.33578566

00:48:10.496 --> 00:48:12.360 edition, maybe a little bit later.

NOTE Confidence: 0.33578566

00:48:12.360 --> 00:48:13.660 But you could see,

NOTE Confidence: 0.33578566

00:48:13.660 --> 00:48:14.960 you know the the,

NOTE Confidence: 0.33578566

00:48:14.960 --> 00:48:18.296 the point of the images that there is

NOTE Confidence: 0.33578566

00:48:18.296 --> 00:48:20.478 often dedicated drainage from ukosocytes

NOTE Confidence: 0.33578566

00:48:20.478 --> 00:48:23.030 of the head and neck to site specific

NOTE Confidence: 0.33578566

00:48:23.092 --> 00:48:25.197 topographic anatomy of lymph nodes.

NOTE Confidence: 0.33578566

00:48:25.200 --> 00:48:27.440 That's why we need to bug our

NOTE Confidence: 0.33578566

00:48:27.440 --> 00:48:28.779 clinical colleagues to say

NOTE Confidence: 0.33578566

00:48:28.779 --> 00:48:30.675 where in the neck is dislocated.

NOTE Confidence: 0.33578566

00:48:30.680 --> 00:48:33.235 Because if I know it's level 6,

NOTE Confidence: 0.33578566

00:48:33.240 --> 00:48:34.131 I'm thinking thyroid.

NOTE Confidence: 0.33578566

00:48:34.131 --> 00:48:35.319 If it's super clavicular,

NOTE Confidence: 0.33578566

00:48:35.320 --> 00:48:39.184 I'm thinking something below the diaphragm

NOTE Confidence: 0.33578566

00:48:39.184 --> 00:48:43.680 thorax or AB Mario Luna who also passed.

NOTE Confidence: 0.33578566

00:48:43.680 --> 00:48:45.120 I don't know if that name means anything.
NOTE Confidence: 0.33578566

00:48:45.120 --> 00:48:47.168 One of the godfathers of head and neck
NOTE Confidence: 0.33578566

00:48:47.168 --> 00:48:48.639 pathology along with Doctor Barnes,
NOTE Confidence: 0.33578566

00:48:48.640 --> 00:48:50.320 Back, Doctor Beth Sackins and Dr.
NOTE Confidence: 0.33578566

00:48:50.320 --> 00:48:50.733 Himes.
NOTE Confidence: 0.33578566

00:48:50.733 --> 00:48:53.211 This is his chapter in Doctor
NOTE Confidence: 0.33578566

00:48:53.211 --> 00:48:54.388 Barnes book 2009.
NOTE Confidence: 0.33578566

00:48:54.388 --> 00:48:56.476 If you look at the OR,
NOTE Confidence: 0.33578566

00:48:56.480 --> 00:48:59.630 what he did was meta analysis showing
NOTE Confidence: 0.33578566

00:48:59.630 --> 00:49:02.233 that the most common morphologic
NOTE Confidence: 0.33578566

00:49:02.233 --> 00:49:05.398 subtype of occult metastatic cancer,
NOTE Confidence: 0.33578566

00:49:05.400 --> 00:49:07.000 this is the cervical neck,
NOTE Confidence: 0.33578566

00:49:07.000 --> 00:49:09.240 is a squamous carcinoma.
NOTE Confidence: 0.33578566

00:49:09.240 --> 00:49:12.040 And when they identified literature,
NOTE Confidence: 0.33578566

00:49:12.040 --> 00:49:15.350 the primary there was most often from what
NOTE Confidence: 0.33578566

00:49:15.350 --> 00:49:18.200 we call Waldorf's tonsil ring oropharynx,

NOTE Confidence: 0.33578566

00:49:18.200 --> 00:49:20.760 base of tongue Palatine tonsil,

NOTE Confidence: 0.33578566

00:49:20.760 --> 00:49:22.096 nasopharyngeal tonsil,

NOTE Confidence: 0.33578566

00:49:22.096 --> 00:49:26.666 otherwise known as the adenoids and the

NOTE Confidence: 0.33578566

00:49:26.666 --> 00:49:30.776 identification of a primary was about 30%.

NOTE Confidence: 0.33578566

00:49:30.776 --> 00:49:31.880 That's here.

NOTE Confidence: 0.33578566

00:49:31.880 --> 00:49:34.274 So the primary detected in about 30%

NOTE Confidence: 0.33578566

00:49:34.280 --> 00:49:36.280 of these cold metastatic cancers,

NOTE Confidence: 0.51271963

00:49:36.280 --> 00:49:39.080 at least according to this meta analysis,

NOTE Confidence: 0.51271963

00:49:39.080 --> 00:49:40.898 most of them above the clavicle

NOTE Confidence: 0.51271963

00:49:40.898 --> 00:49:42.720 but some below the clavicle.

NOTE Confidence: 0.51271963

00:49:42.720 --> 00:49:45.695 So you have in the literature evidence

NOTE Confidence: 0.51271963

00:49:45.695 --> 00:49:48.678 that the primary was never identified.

NOTE Confidence: 0.51271963

00:49:48.680 --> 00:49:51.326 In all these cases, we know it

NOTE Confidence: 0.51271963

00:49:51.326 --> 00:49:53.879 originates in the Waldorf's tonsil.

NOTE Confidence: 0.51271963

00:49:53.880 --> 00:49:56.160 So these are metastatic

NOTE Confidence: 0.51271963

00:49:56.160 --> 00:49:58.440 carcinoma of unknown primary.
NOTE Confidence: 0.51271963

00:49:58.440 --> 00:50:01.000 These are clinically and
NOTE Confidence: 0.51271963

00:50:01.000 --> 00:50:02.920 radiographically obvious cancers,
NOTE Confidence: 0.51271963

00:50:02.920 --> 00:50:05.760 proven by biopsy or cytology.
NOTE Confidence: 0.51271963

00:50:05.760 --> 00:50:08.120 No history or previous malignancy,
NOTE Confidence: 0.51271963

00:50:08.120 --> 00:50:10.916 no history of any site specific,
NOTE Confidence: 0.51271963

00:50:10.920 --> 00:50:12.825 no clinical laboratory evidence of
NOTE Confidence: 0.51271963

00:50:12.825 --> 00:50:15.785 a primary and that can engender the
NOTE Confidence: 0.51271963

00:50:15.785 --> 00:50:17.761 consideration of a brachiogenic
NOTE Confidence: 0.51271963

00:50:17.761 --> 00:50:19.737 carcinoma whose criteria were
NOTE Confidence: 0.51271963

00:50:19.811 --> 00:50:22.192 defined in 1950 and haven't changed.
NOTE Confidence: 0.51271963

00:50:22.192 --> 00:50:24.760 Except that we don't believe this.
NOTE Confidence: 0.51271963

00:50:24.760 --> 00:50:26.510 I mean, I was taught that at
NOTE Confidence: 0.51271963

00:50:26.510 --> 00:50:28.312 a FIPI drank that kool-aid.
NOTE Confidence: 0.51271963

00:50:28.312 --> 00:50:30.640 I have never made that diagnosis.
NOTE Confidence: 0.51271963

00:50:30.640 --> 00:50:31.996 If you see something in the

NOTE Confidence: 0.51271963

00:50:31.996 --> 00:50:32.674 neck that's malignant,

NOTE Confidence: 0.51271963

00:50:32.680 --> 00:50:35.245 it's metastatic cancer and not

NOTE Confidence: 0.51271963

00:50:35.245 --> 00:50:37.712 arising from a brachiocleptis even

NOTE Confidence: 0.51271963

00:50:37.712 --> 00:50:40.640 if it fits all these criteria.

NOTE Confidence: 0.51271963

00:50:40.640 --> 00:50:41.624 So brachiocleptis,

NOTE Confidence: 0.51271963

00:50:41.624 --> 00:50:44.576 you know they have a bimodal

NOTE Confidence: 0.51271963

00:50:44.576 --> 00:50:45.560 age distribution.

NOTE Confidence: 0.51271963

00:50:45.560 --> 00:50:47.970 They overlap the majority with

NOTE Confidence: 0.51271963

00:50:47.970 --> 00:50:50.380 the typical demographics of an

NOTE Confidence: 0.51271963

00:50:50.461 --> 00:50:52.198 HPV related carcinoma.

NOTE Confidence: 0.51271963

00:50:52.200 --> 00:50:54.906 If you're thinking about making that

NOTE Confidence: 0.51271963

00:50:54.906 --> 00:50:58.396 diagnosis in somebody who's over 40 years,

NOTE Confidence: 0.51271963

00:50:58.400 --> 00:51:00.375 only about 5% of brachiocleptis

NOTE Confidence: 0.51271963

00:51:00.375 --> 00:51:01.560 arise in that.

NOTE Confidence: 0.51271963

00:51:01.560 --> 00:51:03.072 So you need to be a little bit

NOTE Confidence: 0.51271963

00:51:03.072 --> 00:51:04.517 wary and pay attention to age.
NOTE Confidence: 0.51271963

00:51:04.520 --> 00:51:05.960 When you have one of these lesions in,
NOTE Confidence: 0.51271963

00:51:05.960 --> 00:51:08.036 that doesn't mean it can't occur,
NOTE Confidence: 0.51271963

00:51:08.040 --> 00:51:08.946 but you know,
NOTE Confidence: 0.51271963

00:51:08.946 --> 00:51:11.429 we need to be careful about that.
NOTE Confidence: 0.51271963

00:51:11.429 --> 00:51:13.967 Here are examples of of infected
NOTE Confidence: 0.51271963

00:51:13.967 --> 00:51:16.400 or inflamed branchiocleptis,
NOTE Confidence: 0.51271963

00:51:16.400 --> 00:51:16.988 benign epithelium.
NOTE Confidence: 0.51271963

00:51:16.988 --> 00:51:17.576 You know,
NOTE Confidence: 0.51271963

00:51:17.576 --> 00:51:20.040 maybe there's a blush here and a blush here,
NOTE Confidence: 0.51271963

00:51:20.040 --> 00:51:22.240 but typically P16 negative.
NOTE Confidence: 0.51271963

00:51:22.240 --> 00:51:25.604 This is another case, a real case.
NOTE Confidence: 0.51271963

00:51:25.604 --> 00:51:28.320 You can see the epithelium is attenuated.
NOTE Confidence: 0.51271963

00:51:28.320 --> 00:51:30.760 It's not really overtly malignant,
NOTE Confidence: 0.51271963

00:51:30.760 --> 00:51:33.598 but it was diffusely P16 positive.
NOTE Confidence: 0.51271963

00:51:33.600 --> 00:51:36.425 But these are typically uniformly

NOTE Confidence: 0.51271963

00:51:36.425 --> 00:51:37.555 HPV negative.

NOTE Confidence: 0.51271963

00:51:37.560 --> 00:51:40.605 So if you're thinking about making a

NOTE Confidence: 0.51271963

00:51:40.605 --> 00:51:44.748 diagnosis of a branchial Cleft cyst with P16,

NOTE Confidence: 0.51271963

00:51:44.748 --> 00:51:45.918 you still can do it,

NOTE Confidence: 0.51271963

00:51:45.920 --> 00:51:47.866 but you need to reflex to insight

NOTE Confidence: 0.51271963

00:51:47.866 --> 00:51:50.000 to make sure there's no HPV.

NOTE Confidence: 0.51271963

00:51:50.000 --> 00:51:52.359 I've seen cases, believe it or not,

NOTE Confidence: 0.51271963

00:51:52.360 --> 00:51:54.412 with really bland morphology and then

NOTE Confidence: 0.51271963

00:51:54.412 --> 00:51:56.799 we put the whole lesion through,

NOTE Confidence: 0.51271963

00:51:56.800 --> 00:51:59.440 there was no overtly sublogic

NOTE Confidence: 0.51271963

00:51:59.440 --> 00:52:01.552 malignancy that had HPV.

NOTE Confidence: 0.51271963

00:52:01.560 --> 00:52:05.233 So these HPV, the more I see them,

NOTE Confidence: 0.51271963

00:52:05.233 --> 00:52:07.037 the less I understand,

NOTE Confidence: 0.51271963

00:52:07.040 --> 00:52:07.396 You know,

NOTE Confidence: 0.51271963

00:52:07.396 --> 00:52:08.820 This is why we like to do a

NOTE Confidence: 0.51271963

00:52:08.873 --> 00:52:10.529 lot of stains to try to help us
NOTE Confidence: 0.51271963

00:52:10.529 --> 00:52:12.176 define what these are and further
NOTE Confidence: 0.51271963

00:52:12.176 --> 00:52:13.356 understand what's going on.
NOTE Confidence: 0.51271963

00:52:13.360 --> 00:52:15.760 There is literature that supports,
NOTE Confidence: 0.51271963

00:52:15.760 --> 00:52:16.560 you know,
NOTE Confidence: 0.51271963

00:52:16.560 --> 00:52:18.560 branchiocleptis with HPV and those
NOTE Confidence: 0.51271963

00:52:18.560 --> 00:52:21.729 with not the majority or not and and
NOTE Confidence: 0.51271963

00:52:21.729 --> 00:52:24.049 as we're standing here talking about
NOTE Confidence: 0.51271963

00:52:24.049 --> 00:52:26.320 this branchial cleptis are not HPV related.
NOTE Confidence: 0.51271963

00:52:26.320 --> 00:52:28.040 So if you find HPV,
NOTE Confidence: 0.51271963

00:52:28.040 --> 00:52:29.910 you know even unfortunately if
NOTE Confidence: 0.51271963

00:52:29.910 --> 00:52:31.780 there's no bland Histology and
NOTE Confidence: 0.51271963

00:52:31.843 --> 00:52:33.558 had a case about a year ago,
NOTE Confidence: 0.51271963

00:52:33.560 --> 00:52:35.198 we're compelled to call it carcinoma,
NOTE Confidence: 0.51271963

00:52:35.200 --> 00:52:37.320 metastatic carcinoma.
NOTE Confidence: 0.51271963

00:52:37.320 --> 00:52:39.318 So before I end I just wanted to share,

NOTE Confidence: 0.51271963

00:52:39.320 --> 00:52:40.594 I saw it with a case history.

NOTE Confidence: 0.51271963

00:52:40.600 --> 00:52:42.896 I want to end with a case history

NOTE Confidence: 0.51271963

00:52:42.896 --> 00:52:44.764 39 year old female enlarging

NOTE Confidence: 0.51271963

00:52:44.764 --> 00:52:47.194 right sided neck mass level 2A,

NOTE Confidence: 0.51271963

00:52:47.200 --> 00:52:48.436 no known history.

NOTE Confidence: 0.51271963

00:52:48.436 --> 00:52:52.639 I don't know if an FNA was done probably

NOTE Confidence: 0.38583145

00:52:52.640 --> 00:52:55.556 that's usually the first diagnostic modality

NOTE Confidence: 0.38583145

00:52:55.560 --> 00:52:57.880 here you can just show or show before.

NOTE Confidence: 0.38583145

00:52:57.880 --> 00:52:59.749 And as we get to higher magnification

NOTE Confidence: 0.38583145

00:52:59.749 --> 00:53:01.085 you can appreciate that there's

NOTE Confidence: 0.38583145

00:53:01.085 --> 00:53:02.519 a little bit of lymph node.

NOTE Confidence: 0.38583145

00:53:02.520 --> 00:53:05.301 But most of it is a face and it's

NOTE Confidence: 0.38583145

00:53:05.301 --> 00:53:08.042 replaced by this sheet like diffuse

NOTE Confidence: 0.38583145

00:53:08.042 --> 00:53:10.397 cell morphology with enlarged nuclei,

NOTE Confidence: 0.38583145

00:53:10.400 --> 00:53:13.240 vesicular chrominent and prominent nucleoli.

NOTE Confidence: 0.38583145

00:53:13.240 --> 00:53:16.060 This is a dead ringer for
NOTE Confidence: 0.38583145

00:53:16.060 --> 00:53:17.000 nasopharyngeal carcinoma,
NOTE Confidence: 0.38583145

00:53:17.000 --> 00:53:19.444 non carbonizing undifferentiated type.
NOTE Confidence: 0.38583145

00:53:19.444 --> 00:53:22.585 Then keratin and P63 is positive
NOTE Confidence: 0.38583145

00:53:22.585 --> 00:53:24.760 but the Eber is negative.
NOTE Confidence: 0.38583145

00:53:24.760 --> 00:53:27.559 And I just this is part of the rationale
NOTE Confidence: 0.38583145

00:53:27.559 --> 00:53:30.558 for showing you the morphologic spectrum.
NOTE Confidence: 0.38583145

00:53:30.560 --> 00:53:32.128 P16 was diffusely positive,
NOTE Confidence: 0.38583145

00:53:32.128 --> 00:53:34.480 a more important HPP was positive.
NOTE Confidence: 0.38583145

00:53:34.480 --> 00:53:36.848 So you have a tumor that looks like
NOTE Confidence: 0.38583145

00:53:36.848 --> 00:53:39.020 nasopharyngeal cancer that if it was Eber
NOTE Confidence: 0.38583145

00:53:39.020 --> 00:53:40.600 positive would be nasopharyngeal carcinoma.
NOTE Confidence: 0.38583145

00:53:40.600 --> 00:53:43.048 The nasopharynx is a different anatomic
NOTE Confidence: 0.38583145

00:53:43.048 --> 00:53:44.878 location to target by radiation.
NOTE Confidence: 0.38583145

00:53:44.878 --> 00:53:46.373 So it's important to separate
NOTE Confidence: 0.38583145

00:53:46.373 --> 00:53:48.040 it out from oral pharynx.

NOTE Confidence: 0.38583145
00:53:48.040 --> 00:53:49.015 It's Eber negative,
NOTE Confidence: 0.38583145
00:53:49.015 --> 00:53:52.079 so you know you need if you're doing this.
NOTE Confidence: 0.38583145
00:53:52.080 --> 00:53:53.200 If you're a psychologist and
NOTE Confidence: 0.38583145
00:53:53.200 --> 00:53:54.600 you have a case like this,
NOTE Confidence: 0.38583145
00:53:54.600 --> 00:53:56.284 just remember, you know,
NOTE Confidence: 0.38583145
00:53:56.284 --> 00:53:59.640 don't get stuck on a particular diagnosis.
NOTE Confidence: 0.38583145
00:53:59.640 --> 00:54:01.320 You do the Ebert's negative,
NOTE Confidence: 0.38583145
00:54:01.320 --> 00:54:04.280 you can reflex, you should reflex the HPV.
NOTE Confidence: 0.38583145
00:54:04.280 --> 00:54:07.580 So this is an HPV associated
NOTE Confidence: 0.38583145
00:54:07.580 --> 00:54:08.680 lymphopelial carcinoma.
NOTE Confidence: 0.38583145
00:54:08.680 --> 00:54:11.260 The patient did have tonsil removed
NOTE Confidence: 0.38583145
00:54:11.260 --> 00:54:13.788 and just these images show the
NOTE Confidence: 0.38583145
00:54:13.788 --> 00:54:16.290 primary which is identical to the
NOTE Confidence: 0.38583145
00:54:16.371 --> 00:54:18.795 metastasis with the P16 and HPV.
NOTE Confidence: 0.38583145
00:54:18.800 --> 00:54:21.040 So the morphologic lesions overlap.
NOTE Confidence: 0.38583145

00:54:21.040 --> 00:54:23.452 So to conclude,
NOTE Confidence: 0.38583145

00:54:23.452 --> 00:54:25.864 undoubtedly viruses cause
NOTE Confidence: 0.38583145

00:54:25.864 --> 00:54:29.080 cancer and neck cancers.
NOTE Confidence: 0.38583145

00:54:29.080 --> 00:54:30.880 Depending on the location,
NOTE Confidence: 0.38583145

00:54:30.880 --> 00:54:32.680 whatever terminology you use,
NOTE Confidence: 0.38583145

00:54:32.680 --> 00:54:34.039 just be consistent.
NOTE Confidence: 0.38583145

00:54:34.039 --> 00:54:36.757 So The Who recommends squamous carcinoma,
NOTE Confidence: 0.38583145

00:54:36.760 --> 00:54:40.252 HPV positive and EV positive.
NOTE Confidence: 0.38583145

00:54:40.252 --> 00:54:42.676 But if you prefer different terminology,
NOTE Confidence: 0.38583145

00:54:42.680 --> 00:54:44.504 always use that terminology.
NOTE Confidence: 0.38583145

00:54:44.504 --> 00:54:47.240 So our clinical colleagues are aware
NOTE Confidence: 0.38583145

00:54:47.240 --> 00:54:49.304 they may and often present as a cold
NOTE Confidence: 0.38583145

00:54:49.304 --> 00:54:51.116 primary for the reasons I show you.
NOTE Confidence: 0.38583145

00:54:51.120 --> 00:54:53.620 So tiny primary multiple net
NOTE Confidence: 0.38583145

00:54:53.620 --> 00:54:56.120 metastases that can be large,
NOTE Confidence: 0.38583145

00:54:56.120 --> 00:54:58.652 so small tumors give rise to

NOTE Confidence: 0.38583145

00:54:58.652 --> 00:54:59.918 large metastatic cancers.

NOTE Confidence: 0.38583145

00:54:59.920 --> 00:55:00.920 For the reason I mentioned,

NOTE Confidence: 0.38583145

00:55:00.920 --> 00:55:02.984 there's no such animal as carcinoma

NOTE Confidence: 0.38583145

00:55:02.984 --> 00:55:05.320 insight to relative to the oropharynx.

NOTE Confidence: 0.38583145

00:55:05.320 --> 00:55:07.432 That's because of the unique Histology

NOTE Confidence: 0.38583145

00:55:07.432 --> 00:55:08.840 of the reticulated epithelium,

NOTE Confidence: 0.38583145

00:55:08.840 --> 00:55:09.560 the grading.

NOTE Confidence: 0.38583145

00:55:09.560 --> 00:55:11.000 These are differentiated cancers,

NOTE Confidence: 0.38583145

00:55:11.000 --> 00:55:13.772 so stay away from poorly differentiated

NOTE Confidence: 0.38583145

00:55:13.772 --> 00:55:16.559 and certainly in synoptic reporting the

NOTE Confidence: 0.38583145

00:55:16.559 --> 00:55:19.597 the correct check mark is not applicable.

NOTE Confidence: 0.38583145

00:55:19.600 --> 00:55:21.004 Lesions that morphologically

NOTE Confidence: 0.38583145

00:55:21.004 --> 00:55:23.812 look like carcinoma site to may

NOTE Confidence: 0.38583145

00:55:23.812 --> 00:55:26.037 metastasize because of the epithelium.

NOTE Confidence: 0.38583145

00:55:26.040 --> 00:55:28.398 It has a broad morphologic spectrum.

NOTE Confidence: 0.38583145

00:55:28.400 --> 00:55:29.664 Ancillary testing is critical.
NOTE Confidence: 0.38583145

00:55:29.664 --> 00:55:32.241 The SP 16 is a good Screener but
NOTE Confidence: 0.38583145

00:55:32.241 --> 00:55:34.673 it needs to be backed up by insight
NOTE Confidence: 0.38583145

00:55:34.738 --> 00:55:36.640 to for the reason I mentioned.
NOTE Confidence: 0.38583145

00:55:36.640 --> 00:55:39.568 If these viral related cancers have
NOTE Confidence: 0.38583145

00:55:39.568 --> 00:55:42.279 overall better prognosis than non viral
NOTE Confidence: 0.38583145

00:55:42.280 --> 00:55:44.580 with the exception of neuroendocrine
NOTE Confidence: 0.38583145

00:55:44.580 --> 00:55:46.515 cancer and the the recommendation if
NOTE Confidence: 0.38583145

00:55:46.515 --> 00:55:48.388 you make a diagnosis of neuroendocrine
NOTE Confidence: 0.38583145

00:55:48.388 --> 00:55:51.048 carcinoma you do not need to cap
NOTE Confidence: 0.38583145

00:55:51.048 --> 00:55:53.808 recommendation to reflex to HPV.
NOTE Confidence: 0.38583145

00:55:53.808 --> 00:55:55.776 But if you're uncertain to diagnosis
NOTE Confidence: 0.38583145

00:55:55.776 --> 00:55:57.681 and it's part of your immuno
NOTE Confidence: 0.38583145

00:55:57.681 --> 00:55:59.397 your work up and you've gotten
NOTE Confidence: 0.38583145

00:55:59.397 --> 00:56:01.119 it at the initial testing,
NOTE Confidence: 0.38583145

00:56:01.120 --> 00:56:03.712 you may get that stain back but it

NOTE Confidence: 0.38583145

00:56:03.712 --> 00:56:06.998 doesn't positively impact survival.

NOTE Confidence: 0.38583145

00:56:07.000 --> 00:56:08.780 I showed you the overlapping

NOTE Confidence: 0.38583145

00:56:08.780 --> 00:56:10.560 morphologies with HPV and EBV,

NOTE Confidence: 0.38583145

00:56:10.560 --> 00:56:12.500 so unknown primary with

NOTE Confidence: 0.38583145

00:56:12.500 --> 00:56:14.440 particular morphology you might

NOTE Confidence: 0.3014287

00:56:14.440 --> 00:56:18.472 order at the same time HPV and Eber testing,

NOTE Confidence: 0.3014287

00:56:18.480 --> 00:56:20.552 there's no correlation to the small size

NOTE Confidence: 0.3014287

00:56:20.552 --> 00:56:22.868 in the large metastasis and that occult

NOTE Confidence: 0.3014287

00:56:22.868 --> 00:56:25.200 primary even when the tonsil comes out.

NOTE Confidence: 0.3014287

00:56:25.200 --> 00:56:26.598 And I can assure you haven't

NOTE Confidence: 0.3014287

00:56:26.598 --> 00:56:28.599 looked at a lot of tonsillectomies,

NOTE Confidence: 0.3014287

00:56:28.600 --> 00:56:31.500 takes a lot of time to look because that

NOTE Confidence: 0.3014287

00:56:31.500 --> 00:56:34.398 primary can be at one slide in one focus.

NOTE Confidence: 0.3014287

00:56:34.400 --> 00:56:36.332 P16 is helpful then because it'll light

NOTE Confidence: 0.3014287

00:56:36.332 --> 00:56:39.126 it up at least it'll point you in the

NOTE Confidence: 0.3014287

00:56:39.126 --> 00:56:41.056 right direction and that all confers
NOTE Confidence: 0.3014287

00:56:41.056 --> 00:56:43.000 different stagings according to the AJCC.
NOTE Confidence: 0.3014287

00:56:43.000 --> 00:56:45.592 So the 8th edition now has
NOTE Confidence: 0.3014287

00:56:45.592 --> 00:56:47.320 two or pharyngeal ones,
NOTE Confidence: 0.3014287

00:56:47.320 --> 00:56:50.030 HPV related HPV independent dedicated
NOTE Confidence: 0.3014287

00:56:50.030 --> 00:56:52.740 nasopharyngeal one and now there's
NOTE Confidence: 0.3014287

00:56:52.823 --> 00:56:55.158 a a separate classification for
NOTE Confidence: 0.3014287

00:56:55.160 --> 00:56:57.640 metastatic cancers of unknown primary.
NOTE Confidence: 0.3014287

00:56:57.640 --> 00:56:58.753 Before I conclude,
NOTE Confidence: 0.3014287

00:56:58.753 --> 00:57:02.219 I just want to share some of the things
NOTE Confidence: 0.3014287

00:57:02.219 --> 00:57:04.784 are on the horizon, liquid biopsy,
NOTE Confidence: 0.3014287

00:57:04.784 --> 00:57:08.720 so NAV DX which is a proprietary company,
NOTE Confidence: 0.3014287

00:57:08.720 --> 00:57:11.800 I'm not sure anybody clinically is using
NOTE Confidence: 0.3014287

00:57:11.800 --> 00:57:14.740 it here are they do you know they are OK,
NOTE Confidence: 0.3014287

00:57:14.740 --> 00:57:16.800 so you're ahead of the game for us.
NOTE Confidence: 0.3014287

00:57:16.800 --> 00:57:19.176 So that is going to become

NOTE Confidence: 0.3014287

00:57:19.176 --> 00:57:20.760 probably standard of care.

NOTE Confidence: 0.3014287

00:57:20.760 --> 00:57:22.036 You know, it assists.

NOTE Confidence: 0.3014287

00:57:22.036 --> 00:57:24.400 It looks at circulating tumor cells or HPV,

NOTE Confidence: 0.3014287

00:57:24.400 --> 00:57:27.305 you know just listed here early cancer

NOTE Confidence: 0.3014287

00:57:27.305 --> 00:57:29.655 detection confirms HPV genotype.

NOTE Confidence: 0.3014287

00:57:29.655 --> 00:57:32.880 You can assess tumor response,

NOTE Confidence: 0.3014287

00:57:32.880 --> 00:57:34.506 identify residual disease

NOTE Confidence: 0.3014287

00:57:34.506 --> 00:57:36.674 and detect early recurrence.

NOTE Confidence: 0.3014287

00:57:36.680 --> 00:57:38.480 And I just took this off their website.

NOTE Confidence: 0.3014287

00:57:38.480 --> 00:57:40.196 So you've probably seen this before.

NOTE Confidence: 0.3014287

00:57:40.200 --> 00:57:42.355 It's an easily interpreted graph

NOTE Confidence: 0.3014287

00:57:42.355 --> 00:57:44.949 that they provide and what always

NOTE Confidence: 0.3014287

00:57:44.949 --> 00:57:46.928 comes up are HPV vaccinations.

NOTE Confidence: 0.3014287

00:57:46.928 --> 00:57:47.760 And yes,

NOTE Confidence: 0.3014287

00:57:47.760 --> 00:57:51.228 the quadrivalent vaccine began was initiated

NOTE Confidence: 0.3014287

00:57:51.228 --> 00:57:56.840 in girls I think in 2006 and in boys in 2011.
NOTE Confidence: 0.3014287

00:57:56.840 --> 00:57:59.240 Does that impact on prevention?
NOTE Confidence: 0.3014287

00:57:59.240 --> 00:58:01.880 We don't know at this point.
NOTE Confidence: 0.3014287

00:58:01.880 --> 00:58:04.799 So the epidemiology remains to be determined.
NOTE Confidence: 0.3014287

00:58:04.800 --> 00:58:05.896 So this is ongoing.
NOTE Confidence: 0.3014287

00:58:05.896 --> 00:58:06.718 And with that,
NOTE Confidence: 0.3014287

00:58:06.720 --> 00:58:07.389 I thank you.
NOTE Confidence: 0.3014287

00:58:07.389 --> 00:58:09.240 Thank you for the invitation to be here.
NOTE Confidence: 0.3014287

00:58:09.240 --> 00:58:10.675 I'd be happy to take any questions
NOTE Confidence: 0.80939144

00:58:18.720 --> 00:58:19.680 and I finished on time.
NOTE Confidence: 0.27545124

00:58:30.240 --> 00:58:31.368 So the question is,
NOTE Confidence: 0.27545124

00:58:31.368 --> 00:58:33.460 have I ever seen HPV positive cancer
NOTE Confidence: 0.27545124

00:58:33.460 --> 00:58:36.000 that was P16 negative? Yes, I have.
NOTE Confidence: 0.27545124

00:58:36.000 --> 00:58:38.800 That's why we do both together because
NOTE Confidence: 0.27545124

00:58:38.884 --> 00:58:41.239 I learned the valuable lesson.
NOTE Confidence: 0.27545124

00:58:41.240 --> 00:58:43.000 I also learned the lesson.

NOTE Confidence: 0.27545124

00:58:43.000 --> 00:58:45.994 You know, my immediate response to

NOTE Confidence: 0.27545124

00:58:45.994 --> 00:58:50.143 a clinician telling me to do P16 on

NOTE Confidence: 0.27545124

00:58:50.143 --> 00:58:52.207 intrapacial dysplastic lesion that

NOTE Confidence: 0.27545124

00:58:52.207 --> 00:58:54.910 has nothing to do with HPV is no,

NOTE Confidence: 0.27545124

00:58:54.910 --> 00:58:55.960 I'm not going to do that.

NOTE Confidence: 0.27545124

00:58:55.960 --> 00:58:57.276 Why am I going to do that?

NOTE Confidence: 0.27545124

00:58:57.280 --> 00:58:58.986 I mean, I'd say it kindly to them, right?

NOTE Confidence: 0.27545124

00:58:58.986 --> 00:59:00.516 I explain what's the rationale,

NOTE Confidence: 0.27545124

00:59:00.520 --> 00:59:02.438 how you going to treat that differently?

NOTE Confidence: 0.27545124

00:59:02.440 --> 00:59:06.038 They're not HPV, but I've been fooled,

NOTE Confidence: 0.27545124

00:59:06.040 --> 00:59:07.440 so I don't do it in every case.

NOTE Confidence: 0.27545124

00:59:07.440 --> 00:59:08.192 In particular,

NOTE Confidence: 0.27545124

00:59:08.192 --> 00:59:11.200 I have two cases of young people of

NOTE Confidence: 0.27545124

00:59:11.278 --> 00:59:13.824 invasive Karyn Eisen squams cancers,

NOTE Confidence: 0.27545124

00:59:13.824 --> 00:59:14.796 the larynx,

NOTE Confidence: 0.27545124

00:59:14.800 --> 00:59:16.200 they're HPV positive and I
NOTE Confidence: 0.27545124

00:59:16.200 --> 00:59:17.600 don't know they were P16.
NOTE Confidence: 0.27545124

00:59:17.600 --> 00:59:19.840 But to go back to your question,
NOTE Confidence: 0.27545124

00:59:19.840 --> 00:59:23.200 rarely one or two cases P16
NOTE Confidence: 0.27545124

00:59:23.200 --> 00:59:25.608 navigative HPV positive and because
NOTE Confidence: 0.27545124

00:59:25.608 --> 00:59:28.156 of that we we run both together.
NOTE Confidence: 0.27545124

00:59:28.160 --> 00:59:28.598 Have you seen
NOTE Confidence: 0.73459303

00:59:28.600 --> 00:59:28.960 one? I don't
NOTE Confidence: 0.73459303

00:59:32.640 --> 00:59:32.840 believe
NOTE Confidence: 0.73459303

00:59:43.160 --> 00:59:43.560 so. OK.
NOTE Confidence: 0.73459303

00:59:46.160 --> 00:59:48.993 So I would suggest if it's it looks HPV
NOTE Confidence: 0.73459303

00:59:48.993 --> 00:59:52.880 and it's in the neck P16 negative and E,
NOTE Confidence: 0.3216313

00:59:57.440 --> 00:59:57.840 yes, so,
NOTE Confidence: 0.3216313

01:00:07.800 --> 01:00:09.120 so you get a tonsil biopsy,
NOTE Confidence: 0.3216313

01:00:13.040 --> 01:00:13.919 you don't see
NOTE Confidence: 0.3216313

01:00:16.160 --> 01:00:18.780 it. Yeah, absolutely.

NOTE Confidence: 0.3216313

01:00:18.780 --> 01:00:21.840 So, and that's what I was referring to so.

NOTE Confidence: 0.3216313

01:00:21.840 --> 01:00:23.256 A patient with a neck mask

NOTE Confidence: 0.3216313

01:00:23.256 --> 01:00:24.200 to do a tonsillectomy,

NOTE Confidence: 0.3216313

01:00:24.200 --> 01:00:26.440 you put the whole thing through and

NOTE Confidence: 0.3216313

01:00:26.440 --> 01:00:28.560 there's nothing really that screams cancer.

NOTE Confidence: 0.3216313

01:00:28.560 --> 01:00:30.920 So I'm not going to do it on 20 slides,

NOTE Confidence: 0.3216313

01:00:30.920 --> 01:00:34.079 but in going through that I might find more,

NOTE Confidence: 0.3216313

01:00:34.080 --> 01:00:35.520 so I didn't compare and contrast.

NOTE Confidence: 0.3216313

01:00:35.520 --> 01:00:37.160 So the reticulated epithelium

NOTE Confidence: 0.3216313

01:00:37.160 --> 01:00:38.800 is usually not cohesive.

NOTE Confidence: 0.3216313

01:00:38.800 --> 01:00:40.558 It can be cohesive at times,

NOTE Confidence: 0.3216313

01:00:40.560 --> 01:00:42.720 but it's very low NC ratio

NOTE Confidence: 0.3216313

01:00:42.720 --> 01:00:43.800 and not hypochromatic.

NOTE Confidence: 0.3216313

01:00:43.800 --> 01:00:45.258 So if I see something that's

NOTE Confidence: 0.3216313

01:00:45.258 --> 01:00:47.481 more even a tiny nest and there's

NOTE Confidence: 0.3216313

01:00:47.481 --> 01:00:48.678 nucleomorphosis in hypochromasia
NOTE Confidence: 0.3216313

01:00:48.678 --> 01:00:50.786 and I'm not convinced, yes,
NOTE Confidence: 0.3216313

01:00:50.786 --> 01:00:54.834 I will do AP16 and if that's positive,
NOTE Confidence: 0.3216313

01:00:54.840 --> 01:00:55.485 that's your primary.
NOTE Confidence: 0.3216313

01:00:55.485 --> 01:00:57.758 But I would like to back it up with insight.
NOTE Confidence: 0.35769647

01:01:02.960 --> 01:01:06.440 I don't see any chat questions.
NOTE Confidence: 0.35769647

01:01:06.440 --> 01:01:08.840 So thank you for your time.
NOTE Confidence: 0.35769647

01:01:15.680 --> 01:01:16.520 Chad, questions.
NOTE Confidence: 0.35769647

01:01:19.320 --> 01:01:22.440 Yes. Yeah, I have one to ask.
NOTE Confidence: 0.35769647

01:01:22.440 --> 01:01:24.305 Are you there? Yeah, I'm here,
NOTE Confidence: 0.35769647

01:01:24.305 --> 01:01:25.080 but I can't hear you.
NOTE Confidence: 0.75608546

01:01:27.320 --> 01:01:29.880 The question is, can
NOTE Confidence: 0.75608546

01:01:29.880 --> 01:01:33.480 HPV be transmitted mouth to mouth by kissing?
NOTE Confidence: 0.75608546

01:01:34.760 --> 01:01:36.000 Did anybody understand that?
NOTE Confidence: 0.75608546

01:01:44.600 --> 01:01:46.437 You should look at the chat if you can.
NOTE Confidence: 0.47786745

01:01:49.560 --> 01:01:52.220 So the question is, can HPV transmitted

NOTE Confidence: 0.47786745

01:01:52.220 --> 01:01:55.880 mouth to mouth so low risk can.

NOTE Confidence: 0.47786745

01:01:55.880 --> 01:01:58.038 I don't know about high risk, I I don't

NOTE Confidence: 0.47786745

01:02:00.920 --> 01:02:02.666 you know, maybe you can through saliva.

NOTE Confidence: 0.47786745

01:02:02.666 --> 01:02:05.196 So it's certainly a possibility,

NOTE Confidence: 0.47786745

01:02:05.200 --> 01:02:07.234 but I don't have an absolute answer for that.

NOTE Confidence: 0.53351223

01:02:18.560 --> 01:02:20.000 Oh, thank you.