WEBVTT

NOTE duration:"01:06:30"

NOTE recognizability:0.858

NOTE language:en-us

NOTE Confidence: 0.960656157142857

00:00:00.000 --> 00:00:02.786 So I think we can get started.

NOTE Confidence: 0.960656157142857

00:00:02.790 --> 00:00:04.452 So hello everyone,

NOTE Confidence: 0.960656157142857

00:00:04.452 --> 00:00:08.330 welcome to one more YCC green Browns.

NOTE Confidence: 0.960656157142857

00:00:08.330 --> 00:00:09.762 I am Antonio Mora,

NOTE Confidence: 0.960656157142857

00:00:09.762 --> 00:00:12.479 chief of neurology and today is my

NOTE Confidence: 0.960656157142857

00:00:12.479 --> 00:00:15.425 pleasure to introduce our wonderful speakers,

NOTE Confidence: 0.960656157142857

00:00:15.430 --> 00:00:19.507 both of whom from our very own Cancer Center.

NOTE Confidence: 0.960656157142857

00:00:19.510 --> 00:00:21.568 The first speaker is Doctor Merrick,

NOTE Confidence: 0.960656157142857

00:00:21.570 --> 00:00:24.636 Goshen, who is a professor of

NOTE Confidence: 0.960656157142857

00:00:24.636 --> 00:00:26.974 surgery within oncology and Deputy

NOTE Confidence: 0.960656157142857

00:00:26.974 --> 00:00:29.254 Chief Medical Officer for surgical

NOTE Confidence: 0.960656157142857

00:00:29.254 --> 00:00:31.468 services at Smilow Cancer Hospital.

NOTE Confidence: 0.960656157142857

00:00:31.470 --> 00:00:33.435 Doctor Goshen earned his medical

NOTE Confidence: 0.960656157142857

00:00:33.435 --> 00:00:35.400 degree from Case Western Reserve

NOTE Confidence: 0.960656157142857

00:00:35.464 --> 00:00:37.280 University School of Medicine.

NOTE Confidence: 0.960656157142857

00:00:37.280 --> 00:00:41.640 And he also pursued an MBA at MIT.

NOTE Confidence: 0.960656157142857

00:00:41.640 --> 00:00:44.104 As well as a fellowship in breast surgical

NOTE Confidence: 0.960656157142857

00:00:44.104 --> 00:00:46.588 ecology at Northwestern Memorial Hospital,

NOTE Confidence: 0.960656157142857

00:00:46.590 --> 00:00:48.588 doctor Goshen is an innovator in

NOTE Confidence: 0.960656157142857

00:00:48.588 --> 00:00:50.290 tailoring surgery and therapy for

NOTE Confidence: 0.960656157142857

00:00:50.290 --> 00:00:52.174 women with early stage breast cancer.

NOTE Confidence: 0.960656157142857

00:00:52.180 --> 00:00:54.240 With funding support from the

NOTE Confidence: 0.960656157142857

00:00:54.240 --> 00:00:55.888 breast Cancer Research Foundation

NOTE Confidence: 0.960656157142857

00:00:55.888 --> 00:00:58.208 and National Institutes of Health.

NOTE Confidence: 0.960656157142857

00:00:58.210 --> 00:00:59.390 He is the principal investigator.

NOTE Confidence: 0.960656157142857

00:00:59.390 --> 00:01:01.546 Several phase two trials aiming to reduce

NOTE Confidence: 0.960656157142857

00:01:01.546 --> 00:01:03.921 the need for second surgeries or re

NOTE Confidence: 0.960656157142857

00:01:03.921 --> 00:01:06.009 excisions in women with breast cancer,

NOTE Confidence: 0.960656157142857

00:01:06.010 --> 00:01:08.710 one of which uses innovative image

NOTE Confidence: 0.960656157142857

00:01:08.710 --> 00:01:10.959 guided operating room capabilities to

NOTE Confidence: 0.960656157142857

00:01:10.959 --> 00:01:13.227 capture and remove all residual tumor

NOTE Confidence: 0.960656157142857

00:01:13.227 --> 00:01:15.610 utilizing MRI and mass spectrometry,

NOTE Confidence: 0.960656157142857

00:01:15.610 --> 00:01:18.418 which is used at Yale's hybrid

NOTE Confidence: 0.960656157142857

00:01:18.418 --> 00:01:19.354 operating room.

NOTE Confidence: 0.960656157142857

00:01:19.360 --> 00:01:20.844 Prior to joining nail,

NOTE Confidence: 0.960656157142857

00:01:20.844 --> 00:01:23.632 doctor Gosh spent 17 years in Boston

NOTE Confidence: 0.960656157142857

00:01:23.632 --> 00:01:26.428 at the Dana Farber Cancer Institute,

NOTE Confidence: 0.960656157142857

00:01:26.430 --> 00:01:28.818 where he was the inaugural and

NOTE Confidence: 0.960656157142857

00:01:28.818 --> 00:01:31.320 incumbent Dr Abdul Mohsin and Susannah

NOTE Confidence: 0.960656157142857

00:01:31.320 --> 00:01:33.415 out to hearing the distinguished

NOTE Confidence: 0.960656157142857

00:01:33.415 --> 00:01:35.530 chair in Surg conchology.

NOTE Confidence: 0.960656157142857

00:01:35.530 --> 00:01:37.510 He also served as the director

NOTE Confidence: 0.960656157142857

00:01:37.510 --> 00:01:39.287 of the Breast Surgical Quality

NOTE Confidence: 0.960656157142857

00:01:39.287 --> 00:01:41.257 Fellowship at the Dana Farber.

NOTE Confidence: 0.960656157142857

00:01:41.260 --> 00:01:43.324 And was an associate professor of

NOTE Confidence: 0.960656157142857

00:01:43.324 --> 00:01:45.160 surgery at Harvard Medical School.

NOTE Confidence: 0.960656157142857

00:01:45.160 --> 00:01:46.832 So without further ado.

NOTE Confidence: 0.960656157142857

00:01:46.832 --> 00:01:49.970 Doctor Goshen, the foresters.

NOTE Confidence: 0.960656157142857

00:01:49.970 --> 00:01:50.270 Thank

NOTE Confidence: 0.93560907125

00:01:50.280 --> 00:01:54.039 you so much for that kind introduction

NOTE Confidence: 0.93560907125

00:01:54.039 --> 00:01:56.400 and I'm excited to be here.

NOTE Confidence: 0.93560907125

00:01:56.400 --> 00:01:58.432 I know we have one hour and we're

NOTE Confidence: 0.93560907125

00:01:58.432 --> 00:02:00.682 going to try to go through two talks,

NOTE Confidence: 0.93560907125

00:02:00.682 --> 00:02:04.000 so I will do my best to stay on time.

NOTE Confidence: 0.93560907125

00:02:04.000 --> 00:02:05.680 And although you know in the

NOTE Confidence: 0.93560907125

00:02:05.680 --> 00:02:06.800 introduction you talk about,

NOTE Confidence: 0.93560907125

00:02:06.800 --> 00:02:09.200 you know, reducing the need for

NOTE Confidence: 0.93560907125

00:02:09.200 --> 00:02:10.800 surgery and minimizing surgery.

NOTE Confidence: 0.93560907125

00:02:10.800 --> 00:02:13.579 One interest of mine early on when

NOTE Confidence: 0.93560907125

00:02:13.579 --> 00:02:16.840 I finished or was in training and

NOTE Confidence: 0.93560907125

00:02:16.840 --> 00:02:19.100 fellowship was the role of surgery

NOTE Confidence: 0.93560907125

00:02:19.100 --> 00:02:20.860 in stage four breast cancer.

NOTE Confidence: 0.93560907125

00:02:20.860 --> 00:02:24.302 I'll kind of go through how the pendulum

NOTE Confidence: 0.93560907125

00:02:24.302 --> 00:02:27.900 has really swung in actually two directions,

NOTE Confidence: 0.93560907125

00:02:27.900 --> 00:02:29.550 so historically stage four breast

NOTE Confidence: 0.93560907125

00:02:29.550 --> 00:02:31.200 cancer as a medium survival.

NOTE Confidence: 0.93560907125

00:02:31.200 --> 00:02:33.976 This is really older data before more modern,

NOTE Confidence: 0.93560907125

00:02:33.980 --> 00:02:36.157 targeted therapies of less than two years,

NOTE Confidence: 0.93560907125

00:02:36.160 --> 00:02:38.365 and really treatment has been

NOTE Confidence: 0.93560907125

00:02:38.365 --> 00:02:40.129 chemotherapy endocrine therapy more

NOTE Confidence: 0.93560907125

00:02:40.129 --> 00:02:42.419 recently targeted or molecular therapy.

NOTE Confidence: 0.93560907125

00:02:42.420 --> 00:02:43.950 There has been some radiation

NOTE Confidence: 0.93560907125

00:02:43.950 --> 00:02:45.480 to sites of metastatic disease,

NOTE Confidence: 0.93560907125

00:02:45.480 --> 00:02:47.124 and you know, interestingly,

NOTE Confidence: 0.93560907125

00:02:47.124 --> 00:02:49.179 when people started looking at

NOTE Confidence: 0.93560907125

00:02:49.179 --> 00:02:51.070 whether local regional therapy.

NOTE Confidence: 0.93560907125

00:02:51.070 --> 00:02:52.474 Was being done.

NOTE Confidence: 0.93560907125

00:02:52.474 --> 00:02:55.282 That number was actually fairly high,

NOTE Confidence: 0.93560907125

00:02:55.290 --> 00:02:57.628 35 to 60% of women were undergoing

NOTE Confidence: 0.93560907125

00:02:57.628 --> 00:02:59.610 local regional therapy in the United

NOTE Confidence: 0.93560907125

00:02:59.610 --> 00:03:01.745 States when really it should have been

NOTE Confidence: 0.93560907125

00:03:01.807 --> 00:03:03.919 reserved for palliation at the time.

NOTE Confidence: 0.93560907125

00:03:03.920 --> 00:03:05.920 And then there was a question of whether

NOTE Confidence: 0.93560907125

00:03:05.920 --> 00:03:08.255 there is any survival benefit in doing this.

NOTE Confidence: 0.93560907125

00:03:08.260 --> 00:03:10.470 This is United States data,

NOTE Confidence: 0.93560907125

00:03:10.470 --> 00:03:13.386 certainly most women fortunately present with

NOTE Confidence: 0.93560907125

00:03:13.386 --> 00:03:16.308 localized or regional disease on stage four,

NOTE Confidence: 0.93560907125

00:03:16.310 --> 00:03:17.852 breast cancer in the United States

NOTE Confidence: 0.93560907125

00:03:17.852 --> 00:03:19.479 and this is very different when

NOTE Confidence: 0.93560907125

00:03:19.479 --> 00:03:20.844 you look outside of EU.

NOTE Confidence: 0.93560907125

00:03:20.850 --> 00:03:21.180 S.

NOTE Confidence: 0.93560907125

00:03:21.180 --> 00:03:24.756 Is only about four to 6% of the population.

NOTE Confidence: 0.93560907125

00:03:24.756 --> 00:03:25.820 You know,

NOTE Confidence: 0.93560907125

00:03:25.820 --> 00:03:28.445 when I was taking my surgery boards,

NOTE Confidence: 0.93560907125

00:03:28.450 --> 00:03:30.362 I would have really I I would have

NOTE Confidence: 0.93560907125

00:03:30.362 --> 00:03:32.456 failed the room if I had suggested that

NOTE Confidence: 0.93560907125

00:03:32.456 --> 00:03:34.299 we should do surgery in this stage.

NOTE Confidence: 0.93560907125

00:03:34.300 --> 00:03:37.060 Four setting outside of palliation.

NOTE Confidence: 0.93560907125

00:03:37.060 --> 00:03:39.010 It was generally accepted that local

NOTE Confidence: 0.93560907125

00:03:39.010 --> 00:03:40.702 therapy did not prolong survival

NOTE Confidence: 0.93560907125

00:03:40.702 --> 00:03:42.718 and there was some earlier data

NOTE Confidence: 0.93560907125

00:03:42.718 --> 00:03:44.825 suggesting that there may be some

NOTE Confidence: 0.93560907125

00:03:44.825 --> 00:03:46.217 stimulation of metastatic growth.

NOTE Confidence: 0.93560907125

00:03:46.220 --> 00:03:46.520 However,

NOTE Confidence: 0.93560907125

00:03:46.520 --> 00:03:48.320 we know that there are diseases

NOTE Confidence: 0.93560907125

00:03:48.320 --> 00:03:50.303 in the stage for setting where

NOTE Confidence: 0.93560907125

00:03:50.303 --> 00:03:52.343 resection of the primary and or

NOTE Confidence: 0.93560907125

00:03:52.343 --> 00:03:54.227 metastatic tumor site could improve

NOTE Confidence: 0.93560907125

00:03:54.227 --> 00:03:56.082 survival or does improve survival.

NOTE Confidence: 0.93560907125

00:03:56.090 --> 00:03:57.830 For example, in colorectal disease,

NOTE Confidence: 0.93560907125

00:03:57.830 --> 00:03:59.870 potentially with metastatic disease to

NOTE Confidence: 0.93560907125

00:03:59.870 --> 00:04:03.000 the liver or in renal cell carcinoma,

NOTE Confidence: 0.93560907125

00:04:03.000 --> 00:04:04.246 and there are good reasons

NOTE Confidence: 0.93560907125

00:04:04.246 --> 00:04:05.566 to leave the primary alone,

NOTE Confidence: 0.93560907125

00:04:05.570 --> 00:04:07.244 and there may be reasons to

NOTE Confidence: 0.93560907125

00:04:07.244 --> 00:04:08.360 resect the primary tumor.

NOTE Confidence: 0.93560907125

00:04:08.360 --> 00:04:09.020 For example,

NOTE Confidence: 0.93560907125

00:04:09.020 --> 00:04:11.330 it is very easy to measure disease

NOTE Confidence: 0.93560907125

00:04:11.330 --> 00:04:13.606 as opposed to getting scans when

NOTE Confidence: 0.93560907125

00:04:13.606 --> 00:04:15.950 you leave the primary tumor alone.

NOTE Confidence: 0.93560907125

00:04:15.950 --> 00:04:17.738 There is morbidity associated

NOTE Confidence: 0.93560907125

00:04:17.738 --> 00:04:20.420 with resection in with even in

NOTE Confidence: 0.93560907125

00:04:20.500 --> 00:04:22.288 a breast cancer surgery,

NOTE Confidence: 0.93560907125

00:04:22.290 --> 00:04:24.525 certainly with mastectomy and more

NOTE Confidence: 0.93560907125

00:04:24.525 --> 00:04:26.313 complex closures and reconstructions.

NOTE Confidence: 0.93560907125

00:04:26.320 --> 00:04:28.000 With sometimes are required,

NOTE Confidence: 0.93560907125

00:04:28.000 --> 00:04:30.520 there was some early data suggesting

NOTE Confidence: 0.93560907125

00:04:30.588 --> 00:04:32.978 sources of cytokines or angiogenesis.

NOTE Confidence: 0.93560907125

00:04:32.980 --> 00:04:34.652 Inhibitors which restrain growth

NOTE Confidence: 0.93560907125

00:04:34.652 --> 00:04:36.711 could be released with metastasis.

NOTE Confidence: 0.93560907125

00:04:36.711 --> 00:04:38.997 And really you know a question

NOTE Confidence: 0.93560907125

00:04:38.997 --> 00:04:41.179 on whether there is a survival

NOTE Confidence: 0.93560907125

00:04:41.179 --> 00:04:43.117 benefit in this setting or not.

NOTE Confidence: 0.93560907125

00:04:43.120 --> 00:04:45.112 We did use surgery in the

NOTE Confidence: 0.93560907125

00:04:45.112 --> 00:04:46.108 palliation of symptoms.

NOTE Confidence: 0.93560907125

00:04:46.110 --> 00:04:48.696 Certainly fear of uncontrolled local disease.

NOTE Confidence: 0.93560907125

00:04:48.700 --> 00:04:51.130 There was suggestion of reducing

NOTE Confidence: 0.93560907125

00:04:51.130 --> 00:04:53.560 the shedding of metastatic cells

NOTE Confidence: 0.93560907125

00:04:53.635 --> 00:04:55.280 and you know could it.

NOTE Confidence: 0.875365026666667

00:04:55.280 --> 00:04:57.215 Potentially if you respect the

NOTE Confidence: 0.875365026666667

00:04:57.215 --> 00:04:58.763 site provide more effective.

NOTE Confidence: 0.875365026666667

00:04:58.770 --> 00:05:00.510 Systemic therapy. Again,

NOTE Confidence: 0.875365026666667

00:05:00.510 --> 00:05:03.990 there was data and ovarian cancer,

NOTE Confidence: 0.875365026666667

00:05:03.990 --> 00:05:06.420 renal cell cancer and colorectal

NOTE Confidence: 0.875365026666667

00:05:06.420 --> 00:05:08.850 cancer setting about surgical debulking

NOTE Confidence: 0.875365026666667

00:05:08.926 --> 00:05:11.086 and surgical removal of disease,

NOTE Confidence: 0.875365026666667

00:05:11.090 --> 00:05:15.194 and again, this was work that I started

NOTE Confidence: 0.875365026666667

00:05:15.194 --> 00:05:17.708 about 2/2 and a half decades ago.

NOTE Confidence: 0.875365026666667

00:05:17.710 --> 00:05:19.440 So I say challenging the

NOTE Confidence: 0.875365026666667

00:05:19.440 --> 00:05:20.824 standard so Seema Khan,

NOTE Confidence: 0.875365026666667

00:05:20.830 --> 00:05:22.828 who was one of my attendings

NOTE Confidence: 0.875365026666667

00:05:22.828 --> 00:05:24.820 when I was a fellow,

NOTE Confidence: 0.875365026666667

00:05:24.820 --> 00:05:28.920 presented in 2002 in a in in a

NOTE Confidence: 0.875365026666667

00:05:28.920 --> 00:05:31.320 not a major surgical society or.

NOTE Confidence: 0.875365026666667

00:05:31.320 --> 00:05:33.655 On Koleji society was called

NOTE Confidence: 0.875365026666667

00:05:33.655 --> 00:05:35.056 Central Surgical Society,

NOTE Confidence: 0.875365026666667

00:05:35.060 --> 00:05:38.108 looking at the National Cancer Database

NOTE Confidence: 0.875365026666667

00:05:38.108 --> 00:05:40.560 for women with stage four disease.

NOTE Confidence: 0.875365026666667

00:05:40.560 --> 00:05:42.680 You know about 4% of patients in EU?

NOTE Confidence: 0.875365026666667

00:05:42.680 --> 00:05:44.934 S presented with stage four breast cancer.

NOTE Confidence: 0.875365026666667

00:05:44.940 --> 00:05:46.976 This is again in the 1990s median

NOTE Confidence: 0.875365026666667

00:05:46.976 --> 00:05:49.613 age or mean age of 62,

NOTE Confidence: 0.875365026666667

00:05:49.613 --> 00:05:51.664 which is really in line with our

NOTE Confidence: 0.875365026666667

00:05:51.664 --> 00:05:53.558 average age of breast cancer in

NOTE Confidence: 0.875365026666667

00:05:53.558 --> 00:05:55.424 the United States and you know,

NOTE Confidence: 0.875365026666667

00:05:55.430 --> 00:05:58.615 she looked at 16,000 women over a.

NOTE Confidence: 0.875365026666667

00:05:58.620 --> 00:06:00.396 I think it was a two or three

NOTE Confidence: 0.875365026666667

00:06:00.396 --> 00:06:01.710 year cohort period of time.

NOTE Confidence: 0.875365026666667

00:06:01.710 --> 00:06:03.656 And first you know the thing that

NOTE Confidence: 0.875365026666667

00:06:03.656 --> 00:06:05.482 was surprising to us and to her

NOTE Confidence: 0.875365026666667

00:06:05.482 --> 00:06:07.110 and to others was that almost 60%

NOTE Confidence: 0.875365026666667

00:06:07.110 --> 00:06:10.270 of women underwent local therapy.

NOTE Confidence: 0.875365026666667

00:06:10.270 --> 00:06:12.862 About 60% underwent mastectomy,

NOTE Confidence: 0.875365026666667

00:06:12.862 --> 00:06:15.328 about 40% underwent breast

NOTE Confidence: 0.875365026666667

00:06:15.328 --> 00:06:18.248 conservation and and you know,

NOTE Confidence: 0.875365026666667

00:06:18.250 --> 00:06:20.476 you can see what the negative

NOTE Confidence: 0.875365026666667

00:06:20.476 --> 00:06:22.709 margin rates were at the time.

NOTE Confidence: 0.875365026666667

00:06:22.710 --> 00:06:23.648 Not surprisingly,

NOTE Confidence: 0.875365026666667

00:06:23.648 --> 00:06:26.462 those that either did not undergo

NOTE Confidence: 0.875365026666667

00:06:26.462 --> 00:06:29.243 surgery or underwent mastectomy had

NOTE Confidence: 0.875365026666667

00:06:29.243 --> 00:06:31.768 larger burden of disease in terms of.

NOTE Confidence: 0.875365026666667

00:06:31.770 --> 00:06:33.842 Tumor size and you know she was

NOTE Confidence: 0.875365026666667

00:06:33.842 --> 00:06:36.149 the first to really present that.

NOTE Confidence: 0.875365026666667

00:06:36.150 --> 00:06:37.585 You know, if you didn't do surgery,

NOTE Confidence: 0.875365026666667

00:06:37.590 --> 00:06:40.370 Sir survival was twenty months.

NOTE Confidence: 0.875365026666667

00:06:40.370 --> 00:06:41.357 If he did,

NOTE Confidence: 0.875365026666667

00:06:41.357 --> 00:06:43.002 breast conservation was 27 months

NOTE Confidence: 0.875365026666667

00:06:43.002 --> 00:06:45.077 and if you did a mastectomy,

NOTE Confidence: 0.875365026666667

00:06:45.080 --> 00:06:47.666 32 months and again suggesting that

NOTE Confidence: 0.875365026666667

00:06:47.666 --> 00:06:49.968 potentially there is a survival

NOTE Confidence: 0.875365026666667

00:06:49.968 --> 00:06:52.448 benefit in the surgical cohort.

NOTE Confidence: 0.875365026666667

00:06:52.450 --> 00:06:54.794 You know those that had bone or soft

NOTE Confidence: 0.875365026666667

00:06:54.794 --> 00:06:56.588 tissue disease tended to do better.

NOTE Confidence: 0.875365026666667

00:06:56.590 --> 00:06:58.055 Certainly if you had fewer

NOTE Confidence: 0.875365026666667

00:06:58.055 --> 00:06:59.227 sites of metastatic disease,

NOTE Confidence: 0.875365026666667

00:06:59.230 --> 00:07:03.024 your outcomes were better giving chemo

NOTE Confidence: 0.875365026666667

00:07:03.024 --> 00:07:05.736 and or endocrine or combination of

NOTE Confidence: 0.875365026666667

00:07:05.736 --> 00:07:08.327 therapy ended up being of benefit and

NOTE Confidence: 0.875365026666667

00:07:08.327 --> 00:07:10.361 this is something that seem Doctor

NOTE Confidence: 0.875365026666667

00:07:10.361 --> 00:07:12.668 Khan has spent a lot of time on as

NOTE Confidence: 0.875365026666667

00:07:12.668 --> 00:07:14.748 well and we'll get to the modern

NOTE Confidence: 0.875365026666667

00:07:14.748 --> 00:07:17.514 era is on margin positive ITI and

NOTE Confidence: 0.875365026666667

00:07:17.514 --> 00:07:20.574 whether that would influence outcome.

NOTE Confidence: 0.875365026666667

00:07:20.580 --> 00:07:22.530 So independent predictors of survival.

NOTE Confidence: 0.875365026666667

00:07:22.530 --> 00:07:24.366 Or the use of systemic therapy?

NOTE Confidence: 0.875365026666667

00:07:24.370 --> 00:07:26.470 Certainly the location of metastatic disease.

NOTE Confidence: 0.875365026666667

00:07:26.470 --> 00:07:28.983 The burden of disease and the type

NOTE Confidence: 0.875365026666667

00:07:28.983 --> 00:07:31.028 of surgical resection that was done.

NOTE Confidence: 0.875365026666667

00:07:31.030 --> 00:07:32.948 And really for four or five years,

NOTE Confidence: 0.875365026666667

00:07:32.950 --> 00:07:35.215 this presented as central Surgical

NOTE Confidence: 0.875365026666667

00:07:35.215 --> 00:07:37.984 and published in surgery really didn't

NOTE Confidence: 0.875365026666667

00:07:37.984 --> 00:07:40.983 get much attention until 2006 to 2009.

NOTE Confidence: 0.875365026666667

00:07:40.983 --> 00:07:44.000 So guilty barbiere at MD Anderson decided

NOTE Confidence: 0.875365026666667

00:07:44.079 --> 00:07:47.447 to look at their stage four breast cancers.

NOTE Confidence: 0.875365026666667

00:07:47.450 --> 00:07:49.214 The mean Age was a little bit

NOTE Confidence: 0.875365026666667

00:07:49.214 --> 00:07:50.410 younger in their cohort.

NOTE Confidence: 0.875365026666667

00:07:50.410 --> 00:07:51.622 They were, you know,

NOTE Confidence: 0.875365026666667

00:07:51.622 --> 00:07:52.834 somewhat surprised at about.

NOTE Confidence: 0.875365026666667

00:07:52.840 --> 00:07:55.540 40% of their patients underwent surgery,

NOTE Confidence: 0.875365026666667

00:07:55.540 --> 00:07:57.424 have had breast conservation,

NOTE Confidence: 0.875365026666667

00:07:57.424 --> 00:08:00.108 have had mastectomies, and you know what?

NOTE Confidence: 0.875365026666667

00:08:00.108 --> 00:08:01.693 We would probably expect is

NOTE Confidence: 0.875365026666667

00:08:01.693 --> 00:08:03.689 that the patients were younger,

NOTE Confidence: 0.875365026666667

00:08:03.690 --> 00:08:05.538 less likely to have nodal involvement,

NOTE Confidence: 0.875365026666667

00:08:05.540 --> 00:08:09.040 fewer sites of metastatic disease

NOTE Confidence: 0.875365026666667

00:08:09.040 --> 00:08:11.770 in their cohort.

NOTE Confidence: 0.912928504

00:08:11.770 --> 00:08:14.044 And when they looked at their

NOTE Confidence: 0.912928504

00:08:14.044 --> 00:08:15.560 follow-up for 32 months,

NOTE Confidence: 0.912928504

00:08:15.560 --> 00:08:18.158 there was a trend towards better

NOTE Confidence: 0.912928504

00:08:18.158 --> 00:08:21.049 overall survival in the surgery group.

NOTE Confidence: 0.912928504

00:08:21.050 --> 00:08:24.610 And there was a benefit in terms of

NOTE Confidence: 0.912928504

00:08:24.610 --> 00:08:26.660 metastatic progression free survival.

NOTE Confidence: 0.912928504

00:08:26.660 --> 00:08:29.312 Then in the GPIO and there

NOTE Confidence: 0.912928504

00:08:29.312 --> 00:08:31.080 was an accompanying editorial

NOTE Confidence: 0.912928504

00:08:31.161 --> 00:08:33.570 by Monica Morrow and 2006,

NOTE Confidence: 0.912928504

00:08:33.570 --> 00:08:35.555 and I think it was something about this.

NOTE Confidence: 0.912928504

00:08:35.560 --> 00:08:37.318 The horse out of the barn.

NOTE Confidence: 0.912928504

00:08:37.320 --> 00:08:38.920 There were 300 patients

NOTE Confidence: 0.912928504

00:08:38.920 --> 00:08:40.120 with metastatic disease,

NOTE Confidence: 0.912928504

00:08:40.120 --> 00:08:41.880 with the Geneva Tumor Cancer

NOTE Confidence: 0.912928504

00:08:41.880 --> 00:08:44.124 Registry on the use of local

NOTE Confidence: 0.912928504

00:08:44.124 --> 00:08:46.608 therapy and again little over half

NOTE Confidence: 0.912928504

00:08:46.608 --> 00:08:48.820 the patients didn't have surgery,

NOTE Confidence: 0.912928504

00:08:48.820 --> 00:08:51.064 but 127 patients did.

NOTE Confidence: 0.912928504

00:08:51.064 --> 00:08:52.747 Most were mastectomies.

NOTE Confidence: 0.912928504

00:08:52.750 --> 00:08:55.438 They describe breast conservation as tumor,

NOTE Confidence: 0.912928504

00:08:55.440 --> 00:08:58.765 ectomy's negative margins and about half and.

NOTE Confidence: 0.912928504

00:08:58.770 --> 00:09:02.144 Nodal surgery in about 1/4 of patients,

NOTE Confidence: 0.912928504

00:09:02.150 --> 00:09:05.363 and this is just kind of a the diagram

NOTE Confidence: 0.912928504

00:09:05.363 --> 00:09:07.960 breaking that down in a schematic

NOTE Confidence: 0.912928504

00:09:07.960 --> 00:09:10.966 or graph form those that ended up

NOTE Confidence: 0.912928504

00:09:10.966 --> 00:09:13.270 undergoing surgery versus not were younger.

NOTE Confidence: 0.912928504

00:09:13.270 --> 00:09:15.699 Lower burden of disease in terms of

NOTE Confidence: 0.912928504

00:09:15.699 --> 00:09:18.599 the size of tumor and nodal disease,

NOTE Confidence: 0.912928504

00:09:18.600 --> 00:09:21.379 more likely again to have a single

NOTE Confidence: 0.912928504

00:09:21.379 --> 00:09:23.865 site of metastatic disease or less

NOTE Confidence: 0.912928504

00:09:23.865 --> 00:09:26.190 likely to have visceral metastasis

NOTE Confidence: 0.912928504

00:09:26.190 --> 00:09:28.880 more likely to undergo radiation.

NOTE Confidence: 0.912928504

00:09:28.880 --> 00:09:30.770 And then you can see what the

NOTE Confidence: 0.912928504

00:09:30.770 --> 00:09:32.281 use of chemotherapy and endocrine

NOTE Confidence: 0.912928504

00:09:32.281 --> 00:09:33.565 therapy was the same.

NOTE Confidence: 0.912928504

00:09:33.570 --> 00:09:34.630 And again, this is,

NOTE Confidence: 0.912928504

00:09:34.630 --> 00:09:35.160 you know,

NOTE Confidence: 0.912928504

00:09:35.160 --> 00:09:37.210 leads the thought of potential

NOTE Confidence: 0.912928504

00:09:37.210 --> 00:09:38.030 selection bias.

NOTE Confidence: 0.912928504

00:09:38.030 --> 00:09:39.773 If you were able to resect the

NOTE Confidence: 0.912928504

00:09:39.773 --> 00:09:41.369 tumor and get clear margins,

NOTE Confidence: 0.912928504

00:09:41.370 --> 00:09:43.566 there was a survival benefit as

NOTE Confidence: 0.912928504

00:09:43.566 --> 00:09:46.342 opposed to those that did not undergo

NOTE Confidence: 0.912928504

00:09:46.342 --> 00:09:48.826 surgery or that have positive margins.

NOTE Confidence: 0.912928504

00:09:48.830 --> 00:09:51.427 And then Fields Group looked at the

NOTE Confidence: 0.912928504

00:09:51.427 --> 00:09:54.277 wash U data over almost a decade,

NOTE Confidence: 0.912928504

00:09:54.280 --> 00:09:56.215 again about half of patients

NOTE Confidence: 0.912928504

00:09:56.215 --> 00:09:56.989 underwent surgery.

NOTE Confidence: 0.912928504

00:09:56.990 --> 00:09:59.546 This is a much longer median.

NOTE Confidence: 0.912928504

00:09:59.550 --> 00:10:02.601 Follow up of 142 months and again there was

NOTE Confidence: 0.912928504

00:10:02.601 --> 00:10:06.028 a survival benefit for surgery versus not.

NOTE Confidence: 0.912928504

00:10:06.030 --> 00:10:07.726 And there there is a theme in in.

NOTE Confidence: 0.912928504

00:10:07.730 --> 00:10:10.400 In all this there was a 250

NOTE Confidence: 0.912928504

00:10:10.400 --> 00:10:12.840 institution review over almost

NOTE Confidence: 0.912928504

00:10:12.840 --> 00:10:15.342 a two decade period of time.

NOTE Confidence: 0.912928504

00:10:15.342 --> 00:10:17.310 This was published in the Annals of Surgery,

NOTE Confidence: 0.912928504

00:10:17.310 --> 00:10:19.080 but Blanchard again.

NOTE Confidence: 0.912928504

00:10:19.080 --> 00:10:22.328 About 60% had surgery in the

NOTE Confidence: 0.912928504

00:10:22.328 --> 00:10:24.913 stage four setting and survival

NOTE Confidence: 0.912928504

00:10:24.913 --> 00:10:28.117 was 27 months versus 17 months.

NOTE Confidence: 0.912928504

00:10:28.120 --> 00:10:29.310 So, as I alluded to,

NOTE Confidence: 0.912928504

00:10:29.310 --> 00:10:31.510 there is selection bias, potentially

NOTE Confidence: 0.912928504

00:10:31.510 --> 00:10:33.710 younger woman with smaller tumors,

NOTE Confidence: 0.912928504

00:10:33.710 --> 00:10:35.066 less knodel involvement,

NOTE Confidence: 0.912928504

00:10:35.066 --> 00:10:37.326 fewer sites of metastatic disease,

NOTE Confidence: 0.912928504

00:10:37.330 --> 00:10:39.850 and this is kind of the differences

NOTE Confidence: 0.912928504

00:10:39.850 --> 00:10:42.094 between the studies from Seema Khan

NOTE Confidence: 0.912928504

00:10:42.094 --> 00:10:44.278 and Repeate and guilty Barbie era.

NOTE Confidence: 0.912928504

00:10:44.280 --> 00:10:46.164 And from the wash you and

NOTE Confidence: 0.912928504

00:10:46.164 --> 00:10:47.920 the the other data again.

NOTE Confidence: 0.912928504

00:10:47.920 --> 00:10:49.780 Younger women with smaller tumors,

NOTE Confidence: 0.912928504

00:10:49.780 --> 00:10:51.112 less nodal involvement,

NOTE Confidence: 0.912928504

00:10:51.112 --> 00:10:53.332 and fewer sites of metastatic

NOTE Confidence: 0.912928504

00:10:53.332 --> 00:10:54.840 disease had surgery.

NOTE Confidence: 0.912928504

00:10:54.840 --> 00:10:57.592 And certainly there have been a lot of

NOTE Confidence: 0.912928504

00:10:57.592 --> 00:10:59.051 attempts statistically and in terms

NOTE Confidence: 0.912928504

00:10:59.051 --> 00:11:01.736 of matching to be able to look at

NOTE Confidence: 0.912928504

00:11:01.736 --> 00:11:05.504 whether that difference continued or not.

NOTE Confidence: 0.912928504

00:11:05.510 --> 00:11:07.561 So this was a work that a

NOTE Confidence: 0.912928504

00:11:07.561 --> 00:11:09.340 previous resident of mine decided.

NOTE Confidence: 0.912928504

00:11:09.340 --> 00:11:09.610 Well,

NOTE Confidence: 0.912928504

00:11:09.610 --> 00:11:11.770 let's look at the Brigham and Farber and

NOTE Confidence: 0.912928504

00:11:11.770 --> 00:11:13.787 Mass general data and you know again,

NOTE Confidence: 0.912928504

00:11:13.790 --> 00:11:16.086 very similar to what everyone else did.

NOTE Confidence: 0.912928504

00:11:16.090 --> 00:11:18.057 You know we had a pretty small

NOTE Confidence: 0.912928504

00:11:18.057 --> 00:11:19.599 cohort of patients a little

NOTE Confidence: 0.912928504

00:11:19.599 --> 00:11:21.194 bit more modern era treatment.

NOTE Confidence: 0.912928504

00:11:21.200 --> 00:11:23.240 About 40% of our patients had

NOTE Confidence: 0.912928504

00:11:23.240 --> 00:11:25.489 surgery in the stage for setting,

NOTE Confidence: 0.92932328

00:11:25.490 --> 00:11:27.278 and I found that actually pretty

NOTE Confidence: 0.92932328

00:11:27.278 --> 00:11:29.320 surprising to see it was that high.

NOTE Confidence: 0.92932328

00:11:29.320 --> 00:11:31.306 But we were actually the first

NOTE Confidence: 0.92932328

00:11:31.306 --> 00:11:33.565 group to look at whether the

NOTE Confidence: 0.92932328

00:11:33.565 --> 00:11:35.725 timing of diagnosis or surgery.

NOTE Confidence: 0.92932328

00:11:35.730 --> 00:11:37.274 In relationship to the

NOTE Confidence: 0.92932328

00:11:37.274 --> 00:11:38.818 diagnosis of stage four,

NOTE Confidence: 0.92932328

00:11:38.820 --> 00:11:41.418 disease made a difference or not.

NOTE Confidence: 0.92932328

00:11:41.420 --> 00:11:44.572 About 25 out of those 61 patients had

NOTE Confidence: 0.92932328

00:11:44.572 --> 00:11:47.408 that surgery before stage 4 diagnosis.

NOTE Confidence: 0.92932328

00:11:47.410 --> 00:11:49.965 I'll go over why this is probably

NOTE Confidence: 0.92932328

00:11:49.965 --> 00:11:51.414 potentially important and 36

NOTE Confidence: 0.92932328

00:11:51.414 --> 00:11:53.154 after stage 4 diagnosis this is

NOTE Confidence: 0.92932328

00:11:53.154 --> 00:11:55.366 kind of hard to read, but again,

NOTE Confidence: 0.92932328

00:11:55.366 --> 00:11:58.082 those in the surgery group in terms

NOTE Confidence: 0.92932328

00:11:58.082 --> 00:12:00.666 of sites of metastatic disease

NOTE Confidence: 0.92932328

00:12:00.666 --> 00:12:03.306 very similar to previous studies

NOTE Confidence: 0.92932328

00:12:03.310 --> 00:12:05.280 with the surgery group having

NOTE Confidence: 0.92932328

00:12:05.280 --> 00:12:07.250 fewer sites of metastatic disease.

NOTE Confidence: 0.92932328

00:12:07.250 --> 00:12:10.970 Versus those that did not undergo surgery.

NOTE Confidence: 0.92932328

00:12:10.970 --> 00:12:12.776 And again, if you underwent surgery,

NOTE Confidence: 0.92932328

00:12:12.780 --> 00:12:16.476 you're more likely to get radiation therapy.

NOTE Confidence: 0.92932328

00:12:16.480 --> 00:12:18.958 So our median survival from the

NOTE Confidence: 0.92932328

00:12:18.958 --> 00:12:20.796 surgery group was 3.52 years

NOTE Confidence: 0.92932328

00:12:20.796 --> 00:12:22.584 and in the nose surgery group,

NOTE Confidence: 0.92932328

00:12:22.590 --> 00:12:24.262 just like everyone else.

NOTE Confidence: 0.92932328

00:12:24.262 --> 00:12:25.098 2.36 years.

NOTE Confidence: 0.92932328

00:12:25.100 --> 00:12:28.112 However, the timing of diagnosis of

NOTE Confidence: 0.92932328

00:12:28.112 --> 00:12:31.359 stage four disease before after surgery,

NOTE Confidence: 0.92932328

00:12:31.360 --> 00:12:33.480 if it was done afterwards,

NOTE Confidence: 0.92932328

00:12:33.480 --> 00:12:36.005 that survival was four years

NOTE Confidence: 0.92932328

00:12:36.005 --> 00:12:38.439 versus before a 2.4 years.

NOTE Confidence: 0.92932328

00:12:38.439 --> 00:12:39.276 So you know,

NOTE Confidence: 0.92932328

00:12:39.276 --> 00:12:41.279 we you know our group looked into

NOTE Confidence: 0.92932328

00:12:41.279 --> 00:12:43.113 this and could this be an example

NOTE Confidence: 0.92932328

00:12:43.113 --> 00:12:45.040 of the Will Rogers phenomenon?

NOTE Confidence: 0.92932328

00:12:45.040 --> 00:12:46.664 Honestly two decades ago, if you ask me.

NOTE Confidence: 0.92932328

00:12:46.670 --> 00:12:49.510 But that was I didn't know the

NOTE Confidence: 0.92932328

00:12:49.510 --> 00:12:51.910 example that that Will Rogers uses,

NOTE Confidence: 0.92932328

00:12:51.910 --> 00:12:54.150 that when the Okies left the state of

NOTE Confidence: 0.92932328

00:12:54.150 --> 00:12:56.110 Oklahoma for the state of California,

NOTE Confidence: 0.92932328

00:12:56.110 --> 00:12:59.094 they raised the average IQ of both states.

NOTE Confidence: 0.92932328

00:12:59.100 --> 00:13:01.134 So I'll let you guys ponder

NOTE Confidence: 0.92932328

00:13:01.134 --> 00:13:03.488 that as we as we move on.

NOTE Confidence: 0.92932328

00:13:03.490 --> 00:13:05.602 So this was the first paper to suggest

NOTE Confidence: 0.92932328

00:13:05.602 --> 00:13:08.016 that the maybe it's there is no survival

NOTE Confidence: 0.92932328

00:13:08.016 --> 00:13:10.233 benefit in surgery and it's really the

NOTE Confidence: 0.92932328

00:13:10.233 --> 00:13:12.123 timing of surgery in relationship to

NOTE Confidence: 0.92932328

00:13:12.123 --> 00:13:14.950 the diagnosis of stage four disease.

NOTE Confidence: 0.92932328

00:13:14.950 --> 00:13:16.362 This shows the difference

NOTE Confidence: 0.92932328

00:13:16.362 --> 00:13:17.774 between surgery and not.

NOTE Confidence: 0.92932328

00:13:17.780 --> 00:13:19.607 But when we looked at the timing,

NOTE Confidence: 0.92932328

00:13:19.610 --> 00:13:21.042 that difference went away.

NOTE Confidence: 0.92932328

00:13:21.042 --> 00:13:23.601 So then I asked another colleague of

NOTE Confidence: 0.92932328

00:13:23.601 --> 00:13:25.695 mine that we recruited Laura Dominici.

NOTE Confidence: 0.92932328

00:13:25.700 --> 00:13:27.542 We looked at the NCCN database

NOTE Confidence: 0.92932328

00:13:27.542 --> 00:13:29.260 of stage four breast cancer.

NOTE Confidence: 0.92932328

00:13:29.260 --> 00:13:31.198 Again a little bit more modern,

NOTE Confidence: 0.92932328

00:13:31.200 --> 00:13:32.853 era 1000 patients,

NOTE Confidence: 0.92932328

00:13:32.853 --> 00:13:35.057 a much larger group.

NOTE Confidence: 0.92932328

00:13:35.060 --> 00:13:37.370 And then we did a match analysis

NOTE Confidence: 0.92932328

00:13:37.370 --> 00:13:39.900 of 236 non surgery patients to

NOTE Confidence: 0.92932328

00:13:39.900 --> 00:13:42.384 54 patients with that had surgery

NOTE Confidence: 0.92932328

00:13:42.384 --> 00:13:44.886 followed by drug therapy and again

NOTE Confidence: 0.92932328

00:13:44.886 --> 00:13:47.196 that survival benefit that was being

NOTE Confidence: 0.92932328

00:13:47.196 --> 00:13:50.118 seen in the surgery group versus

NOTE Confidence: 0.92932328

00:13:50.118 --> 00:13:52.190 non surgery actually disappeared.

NOTE Confidence: 0.92932328

00:13:52.190 --> 00:13:55.136 Survival is 3 1/2 versus 3.4 years.

NOTE Confidence: 0.92932328

00:13:55.136 --> 00:13:56.108 We matched her age,

NOTE Confidence: 0.92932328

00:13:56.110 --> 00:13:57.706 number of sites of metastatic disease,

NOTE Confidence: 0.92932328

00:13:57.710 --> 00:14:01.084 ER, her two sites of metastatic disease,

NOTE Confidence: 0.92932328

00:14:01.090 --> 00:14:04.190 and again I and my there was a very few

NOTE Confidence: 0.92932328

00:14:04.270 --> 00:14:07.329 of us who actually came out strongly

NOTE Confidence: 0.92932328

00:14:07.329 --> 00:14:10.469 against surgery in the stage for setting.

NOTE Confidence: 0.92932328

00:14:10.470 --> 00:14:12.724 And all I've been talking about is

NOTE Confidence: 0.92932328

00:14:12.724 --> 00:14:14.132 retrospective data, and obviously,

NOTE Confidence: 0.92932328

00:14:14.132 --> 00:14:16.192 you know with this you know

NOTE Confidence: 0.92932328

00:14:16.192 --> 00:14:17.788 anything in the world of oncology.

NOTE Confidence: 0.92932328

00:14:17.790 --> 00:14:19.125 Want prospective data?

NOTE Confidence: 0.92932328

00:14:19.125 --> 00:14:22.240 So the world of prospective data came

NOTE Confidence: 0.92932328

00:14:22.314 --> 00:14:25.275 from really a couple of brilliant folks.

NOTE Confidence: 0.92932328

00:14:25.280 --> 00:14:26.600 One is Raj Way bad way.

NOTE Confidence: 0.92932328

00:14:26.600 --> 00:14:29.585 Who's runs the breast service

NOTE Confidence: 0.92932328

00:14:29.585 --> 00:14:32.552 at Tata Memorial in Mumbai,

NOTE Confidence: 0.92932328

00:14:32.552 --> 00:14:33.138 India?

NOTE Confidence: 0.92932328

00:14:33.138 --> 00:14:37.240 They ran the first randomized trial of

NOTE Confidence: 0.795473466666667

00:14:37.352 --> 00:14:39.968 surgical removal of primary

NOTE Confidence: 0.795473466666667

00:14:39.968 --> 00:14:42.584 tumor with lymph node.

NOTE Confidence: 0.795473466666667

00:14:42.590 --> 00:14:46.646 Surgery in the metastatic setting there.

NOTE Confidence: 0.795473466666667

00:14:46.650 --> 00:14:48.855 Endpoints where primary endpoint was

NOTE Confidence: 0.795473466666667

00:14:48.855 --> 00:14:51.096 looking at removal of the primary

NOTE Confidence: 0.795473466666667

00:14:51.096 --> 00:14:53.130 tumor and actually nodes on overall

NOTE Confidence: 0.795473466666667

00:14:53.191 --> 00:14:55.179 survival and progression survival,

NOTE Confidence: 0.795473466666667

00:14:55.180 --> 00:14:56.990 and we're going to go over a couple of the

NOTE Confidence: 0.795473466666667

00:14:57.038 --> 00:14:58.676 randomized trials that have been done.

NOTE Confidence: 0.795473466666667

00:14:58.680 --> 00:15:00.595 That again, the Tata Group

NOTE Confidence: 0.795473466666667

00:15:00.595 --> 00:15:02.127 and Roger Roger Broadway,

NOTE Confidence: 0.795473466666667

00:15:02.130 --> 00:15:05.266 where there's a first looked at 350 patients.

NOTE Confidence: 0.795473466666667

00:15:05.270 --> 00:15:08.780 They were randomizing early to surgery,

NOTE Confidence: 0.795473466666667

00:15:08.780 --> 00:15:11.433 will go over to next to the

NOTE Confidence: 0.795473466666667

00:15:11.433 --> 00:15:13.540 the Turkish Medical Federation,

NOTE Confidence: 0.795473466666667

00:15:13.540 --> 00:15:15.260 which did drug therapy first,

NOTE Confidence: 0.795473466666667

00:15:15.260 --> 00:15:17.190 followed by surgery and finally.

NOTE Confidence: 0.795473466666667

00:15:17.190 --> 00:15:18.878 We're going to get to the E kog

NOTE Confidence: 0.795473466666667

00:15:18.878 --> 00:15:20.490 trial in the United States that

NOTE Confidence: 0.795473466666667

00:15:20.490 --> 00:15:22.194 I helped with with semakan drug

NOTE Confidence: 0.795473466666667

00:15:22.256 --> 00:15:24.046 therapy first followed by surgery.

NOTE Confidence: 0.795473466666667

00:15:24.050 --> 00:15:26.430 So the group in India looked at

NOTE Confidence: 0.795473466666667

00:15:26.430 --> 00:15:28.627 randomizing woman with stage four breast

NOTE Confidence: 0.795473466666667

00:15:28.627 --> 00:15:31.224 cancer to local regional therapy to none.

NOTE Confidence: 0.795473466666667

00:15:31.230 --> 00:15:33.615 They underwent local regional therapy

NOTE Confidence: 0.795473466666667

00:15:33.615 --> 00:15:36.673 and then if indicated anti estrogen

NOTE Confidence: 0.795473466666667

00:15:36.673 --> 00:15:39.106 therapy in the no local regional therapy,

NOTE Confidence: 0.795473466666667

00:15:39.110 --> 00:15:41.210 they were followed by when

NOTE Confidence: 0.795473466666667

00:15:41.210 --> 00:15:42.890 indicated anti estrogen therapy.

NOTE Confidence: 0.795473466666667

00:15:42.890 --> 00:15:45.011 Note it's important to know that there

NOTE Confidence: 0.795473466666667

00:15:45.011 --> 00:15:47.499 were in the time of her two positive.

NOTE Confidence: 0.795473466666667

00:15:47.500 --> 00:15:48.216 Breast cancer.

NOTE Confidence: 0.795473466666667

00:15:48.216 --> 00:15:50.006 None of the patients receive

NOTE Confidence: 0.795473466666667

00:15:50.006 --> 00:15:51.660 anti her two therapy,

NOTE Confidence: 0.795473466666667

00:15:51.660 --> 00:15:53.648 so that's a criticism of the trial.

NOTE Confidence: 0.795473466666667

00:15:53.650 --> 00:15:54.910 But again this was done.

NOTE Confidence: 0.795473466666667

00:15:54.910 --> 00:15:55.710 You know,

NOTE Confidence: 0.795473466666667

00:15:55.710 --> 00:15:58.110 deck started decades ago where you

NOTE Confidence: 0.795473466666667

00:15:58.110 --> 00:16:00.837 know anti her two therapy was just.

NOTE Confidence: 0.795473466666667

00:16:00.840 --> 00:16:02.465 You know getting approved in

NOTE Confidence: 0.795473466666667

00:16:02.465 --> 00:16:04.090 the United States and certainly

NOTE Confidence: 0.795473466666667

00:16:04.151 --> 00:16:05.779 in resource limited countries.

NOTE Confidence: 0.795473466666667

00:16:05.780 --> 00:16:07.570 It's not something that was,

NOTE Confidence: 0.795473466666667

00:16:07.570 --> 00:16:08.486 you know,

NOTE Confidence: 0.795473466666667

00:16:08.486 --> 00:16:10.776 automatically approved and paid for.

NOTE Confidence: 0.795473466666667

00:16:10.780 --> 00:16:12.028 This is the matching.

NOTE Confidence: 0.795473466666667

00:16:12.028 --> 00:16:13.900 They matched the you know their

NOTE Confidence: 0.795473466666667

00:16:13.959 --> 00:16:15.954 patient population very well and

NOTE Confidence: 0.795473466666667

00:16:15.954 --> 00:16:17.550 looking at overall survival.

NOTE Confidence: 0.795473466666667

00:16:17.550 --> 00:16:20.180 There was actually no difference

NOTE Confidence: 0.795473466666667

00:16:20.180 --> 00:16:22.284 between the two groups.

NOTE Confidence: 0.795473466666667

00:16:22.290 --> 00:16:24.225 They tried breaking it down

NOTE Confidence: 0.795473466666667

00:16:24.225 --> 00:16:25.773 by menopausal status numbers,

NOTE Confidence: 0.795473466666667

00:16:25.780 --> 00:16:27.440 the sites of metastatic disease,

NOTE Confidence: 0.795473466666667

00:16:27.440 --> 00:16:28.938 a number of sites of metastatic disease,

NOTE Confidence: 0.795473466666667

00:16:28.940 --> 00:16:30.548 like with that were done like

NOTE Confidence: 0.795473466666667

00:16:30.548 --> 00:16:31.352 the previous trials,

NOTE Confidence: 0.795473466666667

00:16:31.360 --> 00:16:34.867 and you can see really no difference.

NOTE Confidence: 0.795473466666667

00:16:34.870 --> 00:16:35.366 Interestingly,

NOTE Confidence: 0.795473466666667

00:16:35.366 --> 00:16:37.350 distant progression free survival

NOTE Confidence: 0.795473466666667

00:16:37.350 --> 00:16:40.283 was actually lower in the local

NOTE Confidence: 0.795473466666667

00:16:40.283 --> 00:16:42.193 regional therapy group as opposed

NOTE Confidence: 0.795473466666667

00:16:42.193 --> 00:16:44.060 to those that did not.

NOTE Confidence: 0.795473466666667

00:16:44.060 --> 00:16:44.596 And again,

NOTE Confidence: 0.795473466666667

00:16:44.596 --> 00:16:47.070 this is different than what will get to this.

NOTE Confidence: 0.795473466666667

00:16:47.070 --> 00:16:49.604 The Turkish and the US trial they

NOTE Confidence: 0.795473466666667

00:16:49.604 --> 00:16:52.195 were diagnosed with stage four breast

NOTE Confidence: 0.795473466666667

00:16:52.195 --> 00:16:54.107 cancer underwent surgery first,

NOTE Confidence: 0.795473466666667

00:16:54.110 --> 00:16:57.780 then followed by Agilent therapy.

NOTE Confidence: 0.795473466666667

00:16:57.780 --> 00:16:58.902 So Attila Saran,

NOTE Confidence: 0.795473466666667

00:16:58.902 --> 00:17:01.146 who's add Pittsburgh but helped run

NOTE Confidence: 0.795473466666667

00:17:01.146 --> 00:17:03.696 on behalf of the Turkish Federation

NOTE Confidence: 0.795473466666667

00:17:03.696 --> 00:17:05.801 of Society of Breast Disease.

NOTE Confidence: 0.795473466666667

00:17:05.810 --> 00:17:07.830 On randomized trial of evaluating

NOTE Confidence: 0.795473466666667

00:17:07.830 --> 00:17:09.446 resection of primary breast

NOTE Confidence: 0.795473466666667

00:17:09.446 --> 00:17:11.549 tumor with women with stage four,

NOTE Confidence: 0.795473466666667

00:17:11.550 --> 00:17:12.546 breast cancer,

NOTE Confidence: 0.795473466666667

00:17:12.546 --> 00:17:15.036 and these were actually simultaneous

NOTE Confidence: 0.795473466666667

00:17:15.036 --> 00:17:17.436 same day presentations at the

NOTE Confidence: 0.795473466666667

00:17:17.436 --> 00:17:19.096 San Antonio Breast Conference.

NOTE Confidence: 0.795473466666667

00:17:19.100 --> 00:17:20.815 Their early presentation in 2013

NOTE Confidence: 0.795473466666667

00:17:20.815 --> 00:17:22.969 is actually ends up being different

NOTE Confidence: 0.795473466666667

00:17:22.969 --> 00:17:25.249 than what they ended up publishing.

NOTE Confidence: 0.795473466666667

00:17:25.250 --> 00:17:27.466 Will spend a moment or two on that.

NOTE Confidence: 0.795473466666667

00:17:27.470 --> 00:17:29.120 Their primary goal is assessive.

NOTE Confidence: 0.795473466666667

00:17:29.120 --> 00:17:30.505 Early surgical treatment of the

NOTE Confidence: 0.795473466666667

00:17:30.505 --> 00:17:31.890 primary tumor and stage four

NOTE Confidence: 0.795473466666667

00:17:31.936 --> 00:17:33.460 disease effects overall survival.

NOTE Confidence: 0.795473466666667

00:17:33.460 --> 00:17:35.095 They also looked at progression

NOTE Confidence: 0.795473466666667

00:17:35.095 --> 00:17:36.626 free survival, quality, life,

NOTE Confidence: 0.795473466666667

00:17:36.626 --> 00:17:38.816 and morbidity different than the

NOTE Confidence: 0.795473466666667

00:17:38.816 --> 00:17:41.498 Tata group stage four breast cancer.

NOTE Confidence: 0.795473466666667

00:17:41.500 --> 00:17:43.828 That presentation was randomized

NOTE Confidence: 0.795473466666667

00:17:43.828 --> 00:17:45.574 as systemic therapy.

NOTE Confidence: 0.795473466666667

00:17:45.580 --> 00:17:48.742 Then local therapy for local progression

NOTE Confidence: 0.795473466666667

00:17:48.742 --> 00:17:50.850 versus initial local therapy.

NOTE Confidence: 0.795473466666667

00:17:50.850 --> 00:17:51.510 Uh,

NOTE Confidence: 0.795473466666667

00:17:51.510 --> 00:17:54.150 then a systemic therapy

NOTE Confidence: 0.914044793333333

00:17:54.150 --> 00:17:56.676 and then looking at overall survival

NOTE Confidence: 0.914044793333333

00:17:56.680 --> 00:17:58.708 chemotherapy was given to all patients

NOTE Confidence: 0.914044793333333

00:17:58.708 --> 00:18:00.830 either immediately or after randomization.

NOTE Confidence: 0.914044793333333

00:18:00.830 --> 00:18:03.745 All hormone receptor positive patients

NOTE Confidence: 0.914044793333333

00:18:03.745 --> 00:18:06.077 received anti estrogen therapy

NOTE Confidence: 0.914044793333333

00:18:06.077 --> 00:18:08.210 different than the Tata Group.

NOTE Confidence: 0.914044793333333

00:18:08.210 --> 00:18:11.098 The her two positive,

NOTE Confidence: 0.914044793333333

00:18:11.098 --> 00:18:15.160 overexpressed received trastuzumab therapy.

NOTE Confidence: 0.914044793333333

00:18:15.160 --> 00:18:17.720 Most patients if they underwent

NOTE Confidence: 0.914044793333333

00:18:17.720 --> 00:18:19.802 local therapy, underwent mastectomy.

NOTE Confidence: 0.914044793333333

00:18:19.802 --> 00:18:22.958 Radiation was given to some patients

NOTE Confidence: 0.914044793333333

00:18:22.958 --> 00:18:26.260 with with sites of metastatic disease.

NOTE Confidence: 0.914044793333333

00:18:26.260 --> 00:18:28.390 And early on, looking at the

NOTE Confidence: 0.914044793333333

00:18:28.390 --> 00:18:30.293 difference between surgery and those

NOTE Confidence: 0.914044793333333

00:18:30.293 --> 00:18:32.398 that just received systemic therapy,

NOTE Confidence: 0.914044793333333

00:18:32.400 --> 00:18:34.600 there was no statistical difference.

NOTE Confidence: 0.914044793333333

00:18:34.600 --> 00:18:38.555 Overall, when they broke it down by

NOTE Confidence: 0.914044793333333

00:18:38.560 --> 00:18:40.816 numbers of sites of metastatic disease,

NOTE Confidence: 0.914044793333333

00:18:40.820 --> 00:18:43.724 and if there was just a single site

NOTE Confidence: 0.914044793333333

00:18:43.724 --> 00:18:46.200 versus multiple sites in the Solitaire

NOTE Confidence: 0.914044793333333

00:18:46.200 --> 00:18:48.295 E or oligo metastatic setting,

NOTE Confidence: 0.914044793333333

00:18:48.300 --> 00:18:50.108 there was a suggestion,

NOTE Confidence: 0.914044793333333

00:18:50.108 --> 00:18:51.916 potentially of survival benefit

NOTE Confidence: 0.914044793333333

00:18:51.916 --> 00:18:54.380 and this is what they ended up

NOTE Confidence: 0.914044793333333

00:18:54.380 --> 00:18:58.120 presenting at San Antonio in 2013.

NOTE Confidence: 0.914044793333333

00:18:58.120 --> 00:18:59.800 This wasn't actually published

NOTE Confidence: 0.914044793333333

00:18:59.800 --> 00:19:02.400 until five or six years later,

NOTE Confidence: 0.914044793333333

00:19:02.400 --> 00:19:03.200 and we'll go over that.

NOTE Confidence: 0.914044793333333

00:19:03.200 --> 00:19:04.424 While the Tata group,

NOTE Confidence: 0.914044793333333

00:19:04.424 --> 00:19:05.036 you know,

NOTE Confidence: 0.914044793333333

00:19:05.040 --> 00:19:08.099 pretty rapidly published in Lancet on Koleji,

NOTE Confidence: 0.914044793333333

00:19:08.100 --> 00:19:10.236 so they had suggested the Atilius

NOTE Confidence: 0.914044793333333

00:19:10.236 --> 00:19:12.556 Group surrounds group in the Turkish

NOTE Confidence: 0.914044793333333

00:19:12.556 --> 00:19:15.058 Federation that there was no statistically

NOTE Confidence: 0.914044793333333

00:19:15.058 --> 00:19:17.314 difference or difference in overall

NOTE Confidence: 0.914044793333333

00:19:17.314 --> 00:19:19.574 survival survival in early follow-up.

NOTE Confidence: 0.914044793333333

00:19:19.580 --> 00:19:23.111 Potentially those with limited numbers

NOTE Confidence: 0.914044793333333

00:19:23.111 --> 00:19:24.616 of sites of metastatic disease,

NOTE Confidence: 0.914044793333333

00:19:24.620 --> 00:19:26.600 and I know that's of interest

NOTE Confidence: 0.914044793333333

00:19:26.600 --> 00:19:28.661 of people here at Yale and.

NOTE Confidence: 0.914044793333333

00:19:28.661 --> 00:19:30.947 Around the country of maybe not.

NOTE Confidence: 0.914044793333333

00:19:30.950 --> 00:19:33.934 Group behaves differently than

NOTE Confidence: 0.914044793333333

00:19:33.934 --> 00:19:38.220 others with metastatic breast cancer.

NOTE Confidence: 0.914044793333333

00:19:38.220 --> 00:19:40.390 These are the randomized trials

NOTE Confidence: 0.914044793333333

00:19:40.390 --> 00:19:42.560 that were or were underway,

NOTE Confidence: 0.914044793333333

00:19:42.560 --> 00:19:44.684 and their primary endpoints are either

NOTE Confidence: 0.914044793333333

00:19:44.684 --> 00:19:46.900 survival or time to progression.

NOTE Confidence: 0.914044793333333

00:19:46.900 --> 00:19:49.098 So we've seen what happened in India,

NOTE Confidence: 0.914044793333333

00:19:49.100 --> 00:19:50.440 what happened in Turkey?

NOTE Confidence: 0.914044793333333

00:19:50.440 --> 00:19:52.819 We're going to talk about the COG

NOTE Confidence: 0.914044793333333

00:19:52.819 --> 00:19:54.947 in the next one that will actually

NOTE Confidence: 0.914044793333333

00:19:54.947 --> 00:19:56.819 report out will be the Japanese

NOTE Confidence: 0.914044793333333

00:19:56.819 --> 00:20:00.459 jade COG 10710 seventeen trial.

NOTE Confidence: 0.914044793333333

00:20:00.460 --> 00:20:02.557 So this kind of circles back to you know.

NOTE Confidence: 0.914044793333333

00:20:02.560 --> 00:20:04.704 I think maybe if there's anyone who's in

NOTE Confidence: 0.914044793333333

00:20:04.704 --> 00:20:06.538 training that's watching is that you know,

NOTE Confidence: 0.914044793333333

00:20:06.540 --> 00:20:08.640 two decades ago I started as a

NOTE Confidence: 0.914044793333333

00:20:08.640 --> 00:20:10.548 fellow of SEMA Konzum and watched

NOTE Confidence: 0.914044793333333

00:20:10.548 --> 00:20:13.346 the work that she did in the central

NOTE Confidence: 0.914044793333333

00:20:13.346 --> 00:20:15.206 surgical challenging the standards

NOTE Confidence: 0.914044793333333

00:20:15.206 --> 00:20:17.416 of and providing local therapy.

NOTE Confidence: 0.914044793333333

00:20:17.420 --> 00:20:19.030 A suggestion that local therapy

NOTE Confidence: 0.914044793333333

00:20:19.030 --> 00:20:20.318 would be of survival.

NOTE Confidence: 0.914044793333333

00:20:20.320 --> 00:20:22.792 But then watching the retrospective data

NOTE Confidence: 0.914044793333333

00:20:22.792 --> 00:20:25.448 come out, then the prospective data,

NOTE Confidence: 0.914044793333333

00:20:25.448 --> 00:20:27.276 and then the usdata.

NOTE Confidence: 0.914044793333333

00:20:27.280 --> 00:20:30.196 So I was the KVB rap,

NOTE Confidence: 0.914044793333333

00:20:30.200 --> 00:20:32.168 which is now part of alliance.

NOTE Confidence: 0.914044793333333

00:20:32.170 --> 00:20:35.057 For E card 22108,

NOTE Confidence: 0.914044793333333

00:20:35.057 --> 00:20:37.993 this was presented at 2020 in San Antonio.

NOTE Confidence: 0.914044793333333

00:20:38.000 --> 00:20:39.904 The publication honestly will be coming out,

NOTE Confidence: 0.914044793333333

00:20:39.910 --> 00:20:41.170 hopefully in the next month,

NOTE Confidence: 0.914044793333333

00:20:41.170 --> 00:20:44.686 but until then you know it

NOTE Confidence: 0.914044793333333

00:20:44.686 --> 00:20:46.444 isn't published presented,

NOTE Confidence: 0.914044793333333

00:20:46.450 --> 00:20:48.648 but it will be published very soon,

NOTE Confidence: 0.914044793333333

00:20:48.650 --> 00:20:51.154 so we know that from the Tata Group

NOTE Confidence: 0.914044793333333

00:20:51.154 --> 00:20:53.924 that there was no survival with early

NOTE Confidence: 0.914044793333333

00:20:53.924 --> 00:20:55.999 local regional recurrence and then

NOTE Confidence: 0.914044793333333

00:20:56.070 --> 00:20:58.518 again I said that Alisa ran in 2018,

NOTE Confidence: 0.914044793333333

00:20:58.520 --> 00:21:01.330 presented that there was no

NOTE Confidence: 0.914044793333333

00:21:01.330 --> 00:21:03.016 difference also in.

NOTE Confidence: 0.914044793333333

00:21:03.020 --> 00:21:05.883 Come in local regional therapy in terms

NOTE Confidence: 0.914044793333333

00:21:05.883 --> 00:21:08.819 of survival but with longer follow-up.

NOTE Confidence: 0.914044793333333

00:21:08.820 --> 00:21:10.660 Their group actually suggested that

NOTE Confidence: 0.914044793333333

00:21:10.660 --> 00:21:13.020 there was an overall survival benefit.

NOTE Confidence: 0.914044793333333

00:21:13.020 --> 00:21:15.323 There is a lot of issues with

NOTE Confidence: 0.914044793333333

00:21:15.323 --> 00:21:17.898 this paper and publication and I,

NOTE Confidence: 0.914044793333333

00:21:17.898 --> 00:21:20.306 II and others wrote an editorial that

NOTE Confidence: 0.914044793333333

00:21:20.306 --> 00:21:23.239 was simultaneously published with this,

NOTE Confidence: 0.856758129285714

00:21:23.240 --> 00:21:25.416 but and we can discuss this in the

NOTE Confidence: 0.856758129285714

00:21:25.416 --> 00:21:27.937 in in the question answer session.

NOTE Confidence: 0.856758129285714

00:21:27.940 --> 00:21:29.350 But there was a suggestion that

NOTE Confidence: 0.856758129285714

00:21:29.350 --> 00:21:30.700 there was a survival benefit,

NOTE Confidence: 0.856758129285714

00:21:30.700 --> 00:21:34.131 so there's conflicting data equals 2108.

NOTE Confidence: 0.856758129285714

00:21:34.131 --> 00:21:37.017 Started in 2011 with its last

NOTE Confidence: 0.856758129285714

00:21:37.017 --> 00:21:39.478 patients enrolled in 2015 and

NOTE Confidence: 0.856758129285714

00:21:39.478 --> 00:21:41.808 2013 because of slow accrual,

NOTE Confidence: 0.856758129285714

00:21:41.810 --> 00:21:45.144 they did amend their their overall

NOTE Confidence: 0.856758129285714

00:21:45.144 --> 00:21:47.046 goal and the and the randomization,

NOTE Confidence: 0.856758129285714

00:21:47.050 --> 00:21:48.666 but basically in EU,

NOTE Confidence: 0.856758129285714

00:21:48.666 --> 00:21:50.686 S or North America stage,

NOTE Confidence: 0.856758129285714

00:21:50.690 --> 00:21:52.722 four denovo breast cancer.

NOTE Confidence: 0.856758129285714

00:21:52.722 --> 00:21:54.754 Optimal systemic therapy including

NOTE Confidence: 0.856758129285714

00:21:54.754 --> 00:21:56.926 obviously anti her two therapy

NOTE Confidence: 0.856758129285714

00:21:56.926 --> 00:21:59.092 if there was no progression of

NOTE Confidence: 0.856758129285714

00:21:59.092 --> 00:22:01.647 distant disease followed by 4 to 8

NOTE Confidence: 0.856758129285714

00:22:01.647 --> 00:22:03.423 months of optimal systemic therapy.

NOTE Confidence: 0.856758129285714

00:22:03.423 --> 00:22:04.835 They either continued down

NOTE Confidence: 0.856758129285714

00:22:04.835 --> 00:22:06.247 the route of systemic.

NOTE Confidence: 0.856758129285714

00:22:06.250 --> 00:22:08.338 Therapy versus local early

NOTE Confidence: 0.856758129285714

00:22:08.338 --> 00:22:09.904 local regional therapy.

NOTE Confidence: 0.856758129285714

00:22:09.910 --> 00:22:11.824 And again, this is something that

NOTE Confidence: 0.856758129285714

00:22:11.824 --> 00:22:13.569 Doctor Khan focuses a lot on.

NOTE Confidence: 0.856758129285714

00:22:13.570 --> 00:22:17.770 Is the complete resection with free margins.

NOTE Confidence: 0.856758129285714

00:22:17.770 --> 00:22:19.738 Overall survival, just like I showed

NOTE Confidence: 0.856758129285714

00:22:19.738 --> 00:22:22.229 you with all the randomized trials.

NOTE Confidence: 0.856758129285714

00:22:22.230 --> 00:22:24.600 This is the breakdown in

NOTE Confidence: 0.856758129285714

00:22:24.600 --> 00:22:26.801 terms of the patient cohorts.

NOTE Confidence: 0.856758129285714

00:22:26.801 --> 00:22:28.886 For those that were registered,

NOTE Confidence: 0.856758129285714

00:22:28.890 --> 00:22:30.702 not randomized and randomized,

NOTE Confidence: 0.856758129285714

00:22:30.702 --> 00:22:33.906 again anti her two therapy was given

NOTE Confidence: 0.856758129285714

00:22:33.906 --> 00:22:36.324 when they were her two positive,

NOTE Confidence: 0.856758129285714

00:22:36.330 --> 00:22:37.994 certainly anti estrogen therapy

NOTE Confidence: 0.856758129285714

00:22:37.994 --> 00:22:41.310 when he R and or PR positive.

NOTE Confidence: 0.856758129285714

00:22:41.310 --> 00:22:42.759 Uhm, the dropout,

NOTE Confidence: 0.856758129285714

00:22:42.759 --> 00:22:45.174 which is really not surprising

NOTE Confidence: 0.856758129285714

00:22:45.174 --> 00:22:47.369 as those that had more,

NOTE Confidence: 0.856758129285714

00:22:47.369 --> 00:22:48.287 you know,

NOTE Confidence: 0.856758129285714

00:22:48.287 --> 00:22:51.041 advanced local disease was ended up

NOTE Confidence: 0.856758129285714

00:22:51.041 --> 00:22:53.790 being higher in the initial systemic

NOTE Confidence: 0.856758129285714

00:22:53.790 --> 00:22:57.009 therapy as opposed to or the group

NOTE Confidence: 0.856758129285714

00:22:57.009 --> 00:22:59.309 that was stable or responding.

NOTE Confidence: 0.856758129285714

00:22:59.310 --> 00:23:01.752 Uhm, median age a little bit

NOTE Confidence: 0.856758129285714

00:23:01.752 --> 00:23:03.910 younger than CMAS earlier study.

NOTE Confidence: 0.856758129285714

00:23:03.910 --> 00:23:04.712 Looking at,

NOTE Confidence: 0.856758129285714

00:23:04.712 --> 00:23:06.717 you know the NCDB database

NOTE Confidence: 0.856758129285714

00:23:06.717 --> 00:23:09.190 by about six or seven years.

NOTE Confidence: 0.856758129285714

00:23:09.190 --> 00:23:10.444 And then when you looked at

NOTE Confidence: 0.856758129285714

00:23:10.444 --> 00:23:11.280 those that were randomized,

NOTE Confidence: 0.856758129285714

00:23:11.280 --> 00:23:16.230 early local therapy 109 received surgery,

NOTE Confidence: 0.856758129285714

00:23:16.230 --> 00:23:18.755 87 achieved surgical free margins

NOTE Confidence: 0.856758129285714

00:23:18.755 --> 00:23:21.763 and and and local regional therapy

NOTE Confidence: 0.856758129285714

00:23:21.763 --> 00:23:24.682 was at 74 of those patients.

NOTE Confidence: 0.856758129285714

00:23:24.682 --> 00:23:27.347 The reasons why no surgery,

NOTE Confidence: 0.856758129285714

00:23:27.350 --> 00:23:29.648 some ended up refusing some progress,

NOTE Confidence: 0.856758129285714

00:23:29.650 --> 00:23:33.010 some was made by MD decision.

NOTE Confidence: 0.856758129285714

00:23:33.010 --> 00:23:33.277 Finally,

NOTE Confidence: 0.856758129285714

00:23:33.277 --> 00:23:35.680 we were able in the US to go back

NOTE Confidence: 0.856758129285714

00:23:35.749 --> 00:23:37.543 to what SEMA started in saying

NOTE Confidence: 0.856758129285714

00:23:37.543 --> 00:23:39.889 that there was a survival benefit.

NOTE Confidence: 0.856758129285714

00:23:39.890 --> 00:23:41.983 Now we come to the point of

NOTE Confidence: 0.856758129285714

00:23:41.983 --> 00:23:43.542 having randomized data from the

NOTE Confidence: 0.856758129285714

00:23:43.542 --> 00:23:45.635 US and suggested that there is no

NOTE Confidence: 0.856758129285714

00:23:45.635 --> 00:23:47.513 overall survival benefit for women

NOTE Confidence: 0.856758129285714

00:23:47.513 --> 00:23:49.408 with stage four breast cancer.

NOTE Confidence: 0.856758129285714

00:23:49.410 --> 00:23:53.526 This is with a median follow-up of

NOTE Confidence: 0.856758129285714

00:23:53.530 --> 00:23:57.190 5353 months progression free survival.

NOTE Confidence: 0.856758129285714

00:23:57.190 --> 00:23:58.675 Similarly, no difference,

NOTE Confidence: 0.856758129285714

00:23:58.675 --> 00:24:02.140 something that you know we saw a

NOTE Confidence: 0.856758129285714

00:24:02.234 --> 00:24:04.970 suggestion of in the Tata Group.

NOTE Confidence: 0.856758129285714

00:24:04.970 --> 00:24:07.502 Is that potentially and there are

NOTE Confidence: 0.856758129285714

00:24:07.502 --> 00:24:10.314 certain subtypes of breast cancer that

NOTE Confidence: 0.856758129285714

00:24:10.314 --> 00:24:12.204 actually operating may actually be

NOTE Confidence: 0.856758129285714

00:24:12.204 --> 00:24:14.850 a more of a detriment to not operating,

NOTE Confidence: 0.856758129285714

00:24:14.850 --> 00:24:16.368 so it's not necessarily been equivalent,

NOTE Confidence: 0.856758129285714

00:24:16.370 --> 00:24:17.567 but potentially worse,

NOTE Confidence: 0.856758129285714

00:24:17.567 --> 00:24:19.961 and maybe that's seen in the

NOTE Confidence: 0.856758129285714

00:24:19.961 --> 00:24:23.350 triple negative breast cancer.

NOTE Confidence: 0.856758129285714

00:24:23.350 --> 00:24:25.096 One thing again that you know

NOTE Confidence: 0.856758129285714

00:24:25.096 --> 00:24:27.091 will be focused on a little bit

NOTE Confidence: 0.856758129285714

00:24:27.091 --> 00:24:28.876 in the paper is that there is

NOTE Confidence: 0.856758129285714

00:24:28.938 --> 00:24:31.206 some benefit in terms of local

NOTE Confidence: 0.856758129285714

00:24:31.206 --> 00:24:32.910 regional progression free survival.

NOTE Confidence: 0.856758129285714

00:24:32.910 --> 00:24:36.900 That's how useful that is of an

NOTE Confidence: 0.856758129285714

00:24:36.900 --> 00:24:39.979 endpoint is worth discussing.

NOTE Confidence: 0.856758129285714

00:24:39.980 --> 00:24:42.430 So kind of coming to conclusion is

NOTE Confidence: 0.856758129285714

00:24:42.430 --> 00:24:44.955 that early local therapy does not

NOTE Confidence: 0.856758129285714

00:24:44.955 --> 00:24:47.290 improve survival in patients with

NOTE Confidence: 0.856758129285714

00:24:47.290 --> 00:24:49.190 denovo metastatic breast cancer

NOTE Confidence: 0.856758129285714

00:24:49.190 --> 00:24:51.854 that there was actually a higher

NOTE Confidence: 0.856758129285714

00:24:51.854 --> 00:24:53.630 local regional progression when

NOTE Confidence: 0.856758129285714

00:24:53.706 --> 00:24:55.926 local regional therapy was used,

NOTE Confidence: 0.869006688888889

00:24:55.930 --> 00:24:58.026 the primary site. Again,

NOTE Confidence: 0.869006688888889

00:24:58.026 --> 00:25:01.838 there is a suggestion of progression free,

NOTE Confidence: 0.869006688888889

00:25:01.838 --> 00:25:04.808 you know, some local regional

NOTE Confidence: 0.869006688888889

00:25:04.810 --> 00:25:07.190 therapy response in the stage.

NOTE Confidence: 0.869006688888889

00:25:07.190 --> 00:25:09.042 Four breast cancer setting,

NOTE Confidence: 0.869006688888889

00:25:09.042 --> 00:25:11.357 and again the JAYCOB trial.

NOTE Confidence: 0.869006688888889

00:25:11.360 --> 00:25:14.104 Is still pending and at least in my,

NOTE Confidence: 0.869006688888889

00:25:14.110 --> 00:25:16.518 in my conclusions were that like in in

NOTE Confidence: 0.869006688888889

00:25:16.518 --> 00:25:19.168 almost two and a half decades, we went.

NOTE Confidence: 0.869006688888889

00:25:19.168 --> 00:25:22.022 The pendulum was swung from, you know,

NOTE Confidence: 0.869006688888889

00:25:22.022 --> 00:25:25.350 no surgery to surgery to maybe surgery or

NOTE Confidence: 0.869006688888889

00:25:25.436 --> 00:25:28.614 no surgery to hopefully now no surgery.

NOTE Confidence: 0.869006688888889

00:25:28.620 --> 00:25:31.160 You know, outside of palliation,

NOTE Confidence: 0.869006688888889

00:25:31.160 --> 00:25:33.570 although there is interest in,

NOTE Confidence: 0.869006688888889

00:25:33.570 --> 00:25:35.598 you know in the those with

NOTE Confidence: 0.869006688888889

00:25:35.598 --> 00:25:36.950 limited numbers of metastatic

NOTE Confidence: 0.869006688888889

00:25:37.015 --> 00:25:39.010 site or oligo metastatic disease.

NOTE Confidence: 0.869006688888889

00:25:39.010 --> 00:25:41.341 I don't think the randomized data from

NOTE Confidence: 0.869006688888889

00:25:41.341 --> 00:25:43.852 Tata or the Turkish group supports this

NOTE Confidence: 0.869006688888889

00:25:43.852 --> 00:25:46.559 and the card data that was presented

NOTE Confidence: 0.869006688888889

00:25:46.559 --> 00:25:48.949 ASCO doesn't support this either.

NOTE Confidence: 0.869006688888889

00:25:48.950 --> 00:25:50.235 Over the publication is still

NOTE Confidence: 0.869006688888889

00:25:50.235 --> 00:25:52.037 pending and once that's out then you

NOTE Confidence: 0.869006688888889

00:25:52.037 --> 00:25:53.423 guys can make your own judgment.

NOTE Confidence: 0.869006688888889

00:25:53.430 --> 00:25:54.195 So with that,

NOTE Confidence: 0.869006688888889

00:25:54.195 --> 00:25:56.390 I'd like to thank you for the provision

NOTE Confidence: 0.869006688888889

00:25:56.390 --> 00:25:59.134 of the podium and look forward to talking.

NOTE Confidence: 0.902277358

00:26:01.410 --> 00:26:02.930 Thank you very much, Mary.

NOTE Confidence: 0.902277358

00:26:02.930 --> 00:26:06.745 Uh, we have a few questions here,

NOTE Confidence: 0.902277358

00:26:06.750 --> 00:26:08.808 so for everyone, if you have questions,

NOTE Confidence: 0.902277358

00:26:08.810 --> 00:26:11.438 please post them in the chat.

NOTE Confidence: 0.902277358

00:26:11.440 --> 00:26:14.266 So let me read some of the questions here.

NOTE Confidence: 0.902277358

00:26:14.270 --> 00:26:18.500 A question from Doctor Caring, Addison.

NOTE Confidence: 0.902277358

00:26:18.500 --> 00:26:20.614 She points out that there is a

NOTE Confidence: 0.902277358

00:26:20.614 --> 00:26:22.384 national trend toward doing more

NOTE Confidence: 0.902277358

00:26:22.384 --> 00:26:24.379 local therapy for metastatic disease,

NOTE Confidence: 0.902277358

00:26:24.380 --> 00:26:27.040 which is calling a metastasis

NOTE Confidence: 0.902277358

00:26:27.040 --> 00:26:28.636 sectomy I guess.

NOTE Confidence: 0.902277358

00:26:28.640 --> 00:26:30.386 So, does this data provide some

NOTE Confidence: 0.902277358

00:26:30.386 --> 00:26:31.949 warning for adoption of this

NOTE Confidence: 0.902277358

00:26:31.949 --> 00:26:33.669 trend outside of research studies?

NOTE Confidence: 0.829690901666667

00:26:35.120 --> 00:26:37.220 Honestly, I think it it does,

NOTE Confidence: 0.829690901666667

00:26:37.220 --> 00:26:40.128 at least in breast cancer, that we really,

NOTE Confidence: 0.829690901666667

00:26:40.128 --> 00:26:42.420 you know, we may have an idea.

NOTE Confidence: 0.829690901666667

00:26:42.420 --> 00:26:44.660 We may have antidotes of when it works,

NOTE Confidence: 0.829690901666667

00:26:44.660 --> 00:26:46.795 and you know when you we looked

NOTE Confidence: 0.829690901666667

00:26:46.795 --> 00:26:48.920 at our data institutionally.

NOTE Confidence: 0.829690901666667

00:26:48.920 --> 00:26:51.290 Or many others did as well.

NOTE Confidence: 0.829690901666667

00:26:51.290 --> 00:26:54.860 You know you have to really be, you know.

NOTE Confidence: 0.829690901666667

00:26:54.860 --> 00:26:57.380 Careful for selection bias is

NOTE Confidence: 0.829690901666667

00:26:57.380 --> 00:26:59.900 that you know are unintended,

NOTE Confidence: 0.829690901666667

00:26:59.900 --> 00:27:02.456 but certainly part of this and I am really

NOTE Confidence: 0.829690901666667

00:27:02.456 --> 00:27:04.730 outside of the clinical trial or research.

NOTE Confidence: 0.829690901666667

00:27:04.730 --> 00:27:08.060 Sending as Doctor Edelson suggested.

NOTE Confidence: 0.829690901666667

00:27:08.060 --> 00:27:10.391 Really not a big fan of even

NOTE Confidence: 0.829690901666667

00:27:10.391 --> 00:27:12.020 certainly not local therapy,

NOTE Confidence: 0.829690901666667

00:27:12.020 --> 00:27:13.828 but even metastatic disease

NOTE Confidence: 0.829690901666667

00:27:13.828 --> 00:27:16.088 in that setting as well.

NOTE Confidence: 0.829690901666667

00:27:16.090 --> 00:27:17.924 And I know this is different than

NOTE Confidence: 0.829690901666667

00:27:17.924 --> 00:27:19.719 some other solid tumor types,

NOTE Confidence: 0.829690901666667

00:27:19.719 --> 00:27:22.680 but in the world of breast cancer,

NOTE Confidence: 0.829690901666667

00:27:22.680 --> 00:27:25.110 yeah, there was retrospective data.

NOTE Confidence: 0.829690901666667

00:27:25.110 --> 00:27:26.450 There was conflict on that,

NOTE Confidence: 0.829690901666667

00:27:26.450 --> 00:27:28.046 then we waited for prospective data.

NOTE Confidence: 0.829690901666667

00:27:28.050 --> 00:27:30.450 There was conflict on that on.

NOTE Confidence: 0.829690901666667

00:27:30.450 --> 00:27:33.222 Well it's not U S data or European data.

NOTE Confidence: 0.829690901666667

00:27:33.230 --> 00:27:35.064 Finally we get the usdata and we're,

NOTE Confidence: 0.829690901666667

00:27:35.070 --> 00:27:35.964 you know,

NOTE Confidence: 0.829690901666667

00:27:35.964 --> 00:27:38.646 on the border of getting the

NOTE Confidence: 0.829690901666667

00:27:38.646 --> 00:27:40.949 publication out on that as well.

NOTE Confidence: 0.829690901666667

00:27:40.950 --> 00:27:41.678 And then I thought.

NOTE Confidence: 0.82834904

00:27:43.160 --> 00:27:46.410 Another question from Doctor Peters.

NOTE Confidence: 0.82834904

00:27:46.410 --> 00:27:48.942 So did the EKACH trial allow

NOTE Confidence: 0.82834904

00:27:48.942 --> 00:27:50.630 any number of metastasis?

NOTE Confidence: 0.82834904

00:27:50.630 --> 00:27:52.130 It seems like the general

NOTE Confidence: 0.82834904

00:27:52.130 --> 00:27:54.019 thought was that this may be

NOTE Confidence: 0.82834904

00:27:54.019 --> 00:27:56.090 helpful in low volume disease, so

NOTE Confidence: 0.902180804444445

00:27:56.570 --> 00:27:59.085 it did allow for multiple

NOTE Confidence: 0.902180804444445

00:27:59.085 --> 00:28:01.097 sites of metastatic disease.

NOTE Confidence: 0.902180804444445

00:28:01.100 --> 00:28:03.844 I think the only real from what I

NOTE Confidence: 0.902180804444445

00:28:03.844 --> 00:28:06.247 remember and I actually enrolled a

NOTE Confidence: 0.902180804444445

00:28:06.247 --> 00:28:08.707 couple of patients to this trial.

NOTE Confidence: 0.902180804444445

00:28:08.710 --> 00:28:11.638 Patients that couldn't wear those with

NOTE Confidence: 0.902180804444445

00:28:11.638 --> 00:28:14.041 like leptomeningeal disease that were

NOTE Confidence: 0.902180804444445

00:28:14.041 --> 00:28:16.687 excluded and maybe a handful of others.

NOTE Confidence: 0.902180804444445

00:28:16.690 --> 00:28:18.538 And again, I think this points to the,

NOTE Confidence: 0.902180804444445

00:28:18.540 --> 00:28:21.812 you know is low volume or oligo metastatic

NOTE Confidence: 0.902180804444445

00:28:21.812 --> 00:28:23.884 disease different than those with

NOTE Confidence: 0.902180804444445

00:28:23.884 --> 00:28:26.248 higher volumes or burden of disease.

NOTE Confidence: 0.902180804444445

00:28:26.250 --> 00:28:28.450 And again a lot of people try to

NOTE Confidence: 0.902180804444445

00:28:28.450 --> 00:28:29.702 address those selection biases

NOTE Confidence: 0.902180804444445

00:28:29.702 --> 00:28:31.628 of like you know you know,

NOTE Confidence: 0.902180804444445

00:28:31.630 --> 00:28:33.979 is visceral Mets or lung Mets going to be

NOTE Confidence: 0.902180804444445

00:28:33.979 --> 00:28:35.829 different than soft tissue or bone Mets?

NOTE Confidence: 0.902180804444445

00:28:35.830 --> 00:28:39.277 I again outside of the research setting I am.

NOTE Confidence: 0.902180804444445

00:28:39.280 --> 00:28:40.856 Really cautious of this.

NOTE Confidence: 0.902180804444445

00:28:40.856 --> 00:28:43.685 I'm glad that in my two decades

NOTE Confidence: 0.902180804444445

00:28:43.685 --> 00:28:45.600 I've seen a a trend,

NOTE Confidence: 0.902180804444445

00:28:45.600 --> 00:28:47.392 hopefully away from from

NOTE Confidence: 0.902180804444445

00:28:47.392 --> 00:28:49.184 from local regional therapy.

NOTE Confidence: 0.819593883333333

00:28:49.860 --> 00:28:54.066 Thank you and Doctor David Rim.

NOTE Confidence: 0.819593883333333

00:28:54.070 --> 00:28:56.646 It's asking is it even possible to

NOTE Confidence: 0.819593883333333

00:28:56.646 --> 00:28:58.529 study cancer presented stage four,

NOTE Confidence: 0.819593883333333

00:28:58.530 --> 00:29:00.570 since in this modern era discovery

NOTE Confidence: 0.819593883333333

00:29:00.570 --> 00:29:03.170 of the cancer at stage 4 classifieds

NOTE Confidence: 0.819593883333333

00:29:03.170 --> 00:29:05.394 the patients as having received

NOTE Confidence: 0.819593883333333

00:29:05.394 --> 00:29:08.556 below is the standard of care.

NOTE Confidence: 0.819593883333333

00:29:08.560 --> 00:29:10.369 Any comment meaning

NOTE Confidence: 0.731204395714286

00:29:11.260 --> 00:29:14.767 maybe. I don't understand the question 100,

NOTE Confidence: 0.731204395714286

00:29:14.770 --> 00:29:19.029 so the. Bing diagnosis stage four is

NOTE Confidence: 0.731204395714286

00:29:19.029 --> 00:29:21.351 below the standard of care. Well, I mean,

NOTE Confidence: 0.731204395714286

00:29:21.351 --> 00:29:22.870 we're obviously in the United States I.

NOTE Confidence: 0.731204395714286

00:29:22.870 --> 00:29:23.848 I would say that you know,

NOTE Confidence: 0.731204395714286

00:29:23.850 --> 00:29:26.027 because we have such a well screened

NOTE Confidence: 0.731204395714286

00:29:26.027 --> 00:29:27.705 population that that number is

NOTE Confidence: 0.731204395714286

00:29:27.705 --> 00:29:29.950 relatively low, but it still is about,

NOTE Confidence: 0.731204395714286

00:29:29.950 --> 00:29:31.992 you know again, 4 to 6% depending

NOTE Confidence: 0.731204395714286

00:29:31.992 --> 00:29:33.288 on whether you look at Sierra,

NOTE Confidence: 0.731204395714286

00:29:33.290 --> 00:29:35.190 NCDB or whatever data set.

NOTE Confidence: 0.731204395714286

00:29:35.190 --> 00:29:37.801 But I really like thinking of things

NOTE Confidence: 0.731204395714286

00:29:37.801 --> 00:29:40.460 well outside of EU S borders and

NOTE Confidence: 0.731204395714286

00:29:40.460 --> 00:29:42.656 certainly in Sub Saharan Africa or

NOTE Confidence: 0.731204395714286

00:29:42.730 --> 00:29:45.530 Asia and many other parts of the world.

NOTE Confidence: 0.731204395714286

00:29:45.530 --> 00:29:47.618 You know there are a lot of women who

NOTE Confidence: 0.731204395714286

00:29:47.618 --> 00:29:49.442 are presenting with stage four breast

NOTE Confidence: 0.731204395714286

00:29:49.442 --> 00:29:51.809 cancer and are a lot more patients

NOTE Confidence: 0.731204395714286

00:29:51.809 --> 00:29:54.143 presenting with stage four breast cancer.

NOTE Confidence: 0.731204395714286

00:29:54.150 --> 00:29:56.390 And you know, should different

NOTE Confidence: 0.731204395714286

00:29:56.390 --> 00:29:59.310 options be considered in that setting?

NOTE Confidence: 0.731204395714286

00:29:59.310 --> 00:30:01.308 You know it was nice that at least and

NOTE Confidence: 0.731204395714286

00:30:01.308 --> 00:30:03.226 you know in the work on stage four,

NOTE Confidence: 0.731204395714286

00:30:03.230 --> 00:30:05.606 breast cancer and local regional therapy

NOTE Confidence: 0.731204395714286

00:30:05.606 --> 00:30:08.408 that we had counterparts in India in Turkey,

NOTE Confidence: 0.731204395714286

00:30:08.410 --> 00:30:09.710 in Japan and others that

NOTE Confidence: 0.731204395714286

00:30:09.710 --> 00:30:10.750 were looking at this.

NOTE Confidence: 0.731204395714286

00:30:10.750 --> 00:30:13.912 And it wasn't just run by EU

NOTE Confidence: 0.731204395714286

00:30:13.912 --> 00:30:15.604 S and Europeans in terms of.

NOTE Confidence: 0.731204395714286

00:30:15.610 --> 00:30:17.460 Helping us answer those questions.

NOTE Confidence: 0.765823885714286

00:30:18.610 --> 00:30:23.468 OK, and that well, how about the?

NOTE Confidence: 0.765823885714286

00:30:23.470 --> 00:30:27.166 Role of the Disney Cetera Ginnetti and

NOTE Confidence: 0.765823885714286

00:30:27.170 --> 00:30:30.080 the different phenotypes and molecular

NOTE Confidence: 0.765823885714286

00:30:30.080 --> 00:30:33.104 phenotypes and treatment available and how

NOTE Confidence: 0.765823885714286

00:30:33.104 --> 00:30:35.468 what does that do to despair? Diamond?

NOTE Confidence: 0.765823885714286

00:30:35.468 --> 00:30:37.692 In other words, I was wondering if you

NOTE Confidence: 0.765823885714286

00:30:37.692 --> 00:30:39.640 know if you have a great treatment,

NOTE Confidence: 0.765823885714286

00:30:39.640 --> 00:30:41.904 is it good to have surgery or not?

NOTE Confidence: 0.765823885714286

00:30:41.910 --> 00:30:44.246 Or maybe if you guys have a great

NOTE Confidence: 0.765823885714286

00:30:44.246 --> 00:30:46.260 treatment it doesn't matter? Yeah,

NOTE Confidence: 0.871062266666667

00:30:46.270 --> 00:30:47.936 so that's that's such a great question

NOTE Confidence: 0.871062266666667

00:30:47.936 --> 00:30:49.767 and you know you get those you know.

NOTE Confidence: 0.871062266666667

00:30:49.770 --> 00:30:51.846 You know, there's this young patient,

NOTE Confidence: 0.871062266666667

00:30:51.850 --> 00:30:53.650 you know she's got like.

NOTE Confidence: 0.871062266666667

00:30:53.650 --> 00:30:55.466 A couple of sites that maybe liver disease.

NOTE Confidence: 0.871062266666667

00:30:55.470 --> 00:30:57.186 You get anti her two therapy.

NOTE Confidence: 0.871062266666667

00:30:57.190 --> 00:30:57.862 Everything disappears.

NOTE Confidence: 0.871062266666667

00:30:57.862 --> 00:31:00.550 You know maybe she has a little bit

NOTE Confidence: 0.871062266666667

00:31:00.608 --> 00:31:02.642 of a lump or mass in the breast but

NOTE Confidence: 0.871062266666667

00:31:02.642 --> 00:31:04.774 you know you know you get the story.

NOTE Confidence: 0.871062266666667

00:31:04.780 --> 00:31:05.974 You know she has young kids

NOTE Confidence: 0.871062266666667

00:31:05.974 --> 00:31:07.230 and a family and you know,

NOTE Confidence: 0.871062266666667

00:31:07.230 --> 00:31:08.910 let's just, you know it's easy.

NOTE Confidence: 0.871062266666667

00:31:08.910 --> 00:31:11.346 Just take it out, you know I,

NOTE Confidence: 0.871062266666667

00:31:11.350 --> 00:31:13.590 I really think that's you know the you

NOTE Confidence: 0.871062266666667

00:31:13.590 --> 00:31:16.046 know she's going to likely do well anyways,

NOTE Confidence: 0.871062266666667

00:31:16.050 --> 00:31:18.549 whether I do the lumpectomy or mastectomy,

NOTE Confidence: 0.871062266666667

00:31:18.550 --> 00:31:20.699 remove the lymph nodes, yes or no.

NOTE Confidence: 0.871062266666667

00:31:20.700 --> 00:31:23.916 And again, there's this, you know, making.

NOTE Confidence: 0.871062266666667

00:31:23.916 --> 00:31:26.652 US or the patient feel better

NOTE Confidence: 0.871062266666667

00:31:26.652 --> 00:31:29.518 versus are we actually, you know,

NOTE Confidence: 0.871062266666667

00:31:29.518 --> 00:31:31.312 doing a benefit in terms of

NOTE Confidence: 0.871062266666667

00:31:31.312 --> 00:31:32.750 keeping them alive longer.

NOTE Confidence: 0.871062266666667

00:31:32.750 --> 00:31:34.090 And certainly you know,

NOTE Confidence: 0.871062266666667

00:31:34.090 --> 00:31:35.765 breast surgery may not be,

NOTE Confidence: 0.871062266666667

00:31:35.770 --> 00:31:37.226 you know, as morbid as you know,

NOTE Confidence: 0.871062266666667

00:31:37.230 --> 00:31:39.090 very large thoracic and

NOTE Confidence: 0.871062266666667

00:31:39.090 --> 00:31:40.485 intra abdominal surgeries,

NOTE Confidence: 0.871062266666667

00:31:40.490 --> 00:31:42.008 but you know in this society

NOTE Confidence: 0.871062266666667

00:31:42.008 --> 00:31:44.382 we put a lot of emphasis on on

NOTE Confidence: 0.871062266666667

00:31:44.382 --> 00:31:45.997 breasts in the breast cancer.

NOTE Confidence: 0.871062266666667

00:31:46.000 --> 00:31:47.827 And, you know, removal of the breast.

NOTE Confidence: 0.871062266666667

00:31:47.830 --> 00:31:49.503 And then the question becomes in the

NOTE Confidence: 0.871062266666667

00:31:49.503 --> 00:31:51.290 stage for setting if you do a mastectomy.

NOTE Confidence: 0.871062266666667

00:31:51.290 --> 00:31:52.318 How about doing reconstruction

NOTE Confidence: 0.871062266666667

00:31:52.318 --> 00:31:54.210 yes or no and kind of where?

NOTE Confidence: 0.871062266666667

00:31:54.210 --> 00:31:55.002 Where does that end?

NOTE Confidence: 0.871062266666667

00:31:55.002 --> 00:31:56.630 Or why don't you move the opposite?

NOTE Confidence: 0.871062266666667

00:31:56.630 --> 00:31:57.575 The rest as well, and you know,

NOTE Confidence: 0.871062266666667

00:31:57.580 --> 00:31:58.952 I've had those discussions

NOTE Confidence: 0.871062266666667

00:31:58.952 --> 00:32:00.324 time and time again,

NOTE Confidence: 0.871062266666667

00:32:00.330 --> 00:32:01.098 and you know,

NOTE Confidence: 0.871062266666667

00:32:01.098 --> 00:32:03.257 I would hope we're making some of these

NOTE Confidence: 0.871062266666667

00:32:03.257 --> 00:32:05.448 decisions based on data and the science,

NOTE Confidence: 0.871062266666667

00:32:05.450 --> 00:32:06.830 and not what like you know,

NOTE Confidence: 0.871062266666667

00:32:06.830 --> 00:32:08.811 feels good or or maybe the right

NOTE Confidence: 0.871062266666667

00:32:08.811 --> 00:32:10.668 thing to say at that moment.

NOTE Confidence: 0.871062266666667

00:32:10.670 --> 00:32:12.710 So I do think heterogeneity does

NOTE Confidence: 0.871062266666667

00:32:12.710 --> 00:32:13.730 make a difference,

NOTE Confidence: 0.871062266666667

00:32:13.730 --> 00:32:15.025 but I think it's probably

NOTE Confidence: 0.871062266666667

00:32:15.025 --> 00:32:16.581 going to do well regardless of

NOTE Confidence: 0.871062266666667

00:32:16.581 --> 00:32:17.799 what I do with my scalpel.

NOTE Confidence: 0.766362593157895

00:32:19.220 --> 00:32:21.159 Thank you and Doctor Lustberg is pointing

NOTE Confidence: 0.766362593157895

00:32:21.159 --> 00:32:23.057 out that they are very aggressive

NOTE Confidence: 0.766362593157895

00:32:23.057 --> 00:32:24.737 tumors that present biological stage

NOTE Confidence: 0.766362593157895

00:32:24.737 --> 00:32:27.256 for particularly in younger women.

NOTE Confidence: 0.766362593157895

00:32:27.256 --> 00:32:30.402 So it's not necessarily substandard care.

NOTE Confidence: 0.766362593157895

00:32:30.402 --> 00:32:32.090 This bad biology rim.

NOTE Confidence: 0.921376678333333

00:32:32.740 --> 00:32:34.426 That's great, that's a great comment.

NOTE Confidence: 0.908401221666667

00:32:35.120 --> 00:32:36.698 Yes, wonderful thank you so much.

NOTE Confidence: 0.908401221666667

00:32:36.700 --> 00:32:38.639 So I mean there's interest of time.

NOTE Confidence: 0.908401221666667

00:32:38.640 --> 00:32:41.377 We're going to move on to the

NOTE Confidence: 0.908401221666667

00:32:41.377 --> 00:32:43.720 next talk for the next talk.

NOTE Confidence: 0.908401221666667

00:32:43.720 --> 00:32:46.612 We have our very own doctor

NOTE Confidence: 0.908401221666667

00:32:46.612 --> 00:32:49.430 Anita Hutner Dr Hutner is an

NOTE Confidence: 0.908401221666667

00:32:49.430 --> 00:32:51.190 associate professor of pathology,

NOTE Confidence: 0.908401221666667

00:32:51.190 --> 00:32:52.902 who specialize in identifying

NOTE Confidence: 0.908401221666667

00:32:52.902 --> 00:32:55.470 diseases and cancers in the brain.

NOTE Confidence: 0.908401221666667

00:32:55.470 --> 00:32:58.558 She has received her medical degree from the

NOTE Confidence: 0.908401221666667

00:32:58.558 --> 00:33:01.338 University of Ehrlinger Nurburg in Germany.

NOTE Confidence: 0.908401221666667

00:33:01.340 --> 00:33:03.674 And a completely fellowship at Harvard

NOTE Confidence: 0.908401221666667

00:33:03.674 --> 00:33:06.598 Medical School at the Brig and and her

NOTE Confidence: 0.908401221666667

00:33:06.598 --> 00:33:09.200 residency here at the Ionia Haven Hospital.

NOTE Confidence: 0.908401221666667

00:33:09.200 --> 00:33:11.635 So in addition to her

NOTE Confidence: 0.908401221666667

00:33:11.635 --> 00:33:13.096 specialty in neuropathology,

NOTE Confidence: 0.908401221666667

00:33:13.100 --> 00:33:15.560 Dr Hutton has stated molecular

NOTE Confidence: 0.908401221666667

00:33:15.560 --> 00:33:16.544 diagnostic pathology,

NOTE Confidence: 0.908401221666667

00:33:16.550 --> 00:33:17.822 so in her research,

NOTE Confidence: 0.908401221666667

00:33:17.822 --> 00:33:20.185 Dr Hutner uses stem cells to try

NOTE Confidence: 0.908401221666667

00:33:20.185 --> 00:33:22.115 to recreate the brain disorders

NOTE Confidence: 0.908401221666667

00:33:22.120 --> 00:33:24.095 founding diseases like epilepsy and

NOTE Confidence: 0.908401221666667

00:33:24.095 --> 00:33:26.520 Alzheimer's disease and hopes to find

NOTE Confidence: 0.908401221666667

00:33:26.520 --> 00:33:28.455 better treatments for brain tumors.

NOTE Confidence: 0.908401221666667

00:33:28.460 --> 00:33:29.078 So today,

NOTE Confidence: 0.908401221666667

00:33:29.078 --> 00:33:30.623 Doctor Hutner will talk to

NOTE Confidence: 0.908401221666667

00:33:30.623 --> 00:33:32.610 us about a very important.

NOTE Confidence: 0.908401221666667

00:33:32.610 --> 00:33:35.442 Update in the WHL classification of

NOTE Confidence: 0.908401221666667

00:33:35.442 --> 00:33:37.602 brain tumors that will pretty much

NOTE Confidence: 0.908401221666667

00:33:37.602 --> 00:33:39.887 append the way we are calling these

NOTE Confidence: 0.908401221666667

00:33:39.887 --> 00:33:41.907 diseases and classifying disease and

NOTE Confidence: 0.908401221666667

00:33:41.907 --> 00:33:44.540 enrolling the patients in clinical trials.

NOTE Confidence: 0.908401221666667

00:33:44.540 --> 00:33:47.312 So we're very fortunate to have her

NOTE Confidence: 0.908401221666667

00:33:47.312 --> 00:33:49.900 here to educate us on that hardener.

NOTE Confidence: 0.906106616666667

00:33:51.920 --> 00:33:53.360 Thank you, Antonio.

NOTE Confidence: 0.906106616666667

00:33:53.360 --> 00:33:56.240 Thank you for this kind introduction.

NOTE Confidence: 0.906106616666667

00:33:56.240 --> 00:33:58.200 Thank you. It's a it's a real

NOTE Confidence: 0.906106616666667

00:33:58.200 --> 00:34:00.434 pleasure to be here and have the

NOTE Confidence: 0.906106616666667

00:34:00.434 --> 00:34:02.420 opportunity to share with you some

NOTE Confidence: 0.906106616666667

00:34:02.490 --> 00:34:05.855 insights into the upcoming 2021 W

NOTE Confidence: 0.906106616666667

00:34:05.855 --> 00:34:08.710 2 classification of CNS tumors.

NOTE Confidence: 0.906106616666667

00:34:08.710 --> 00:34:12.376 It's now the 5th and I'll

NOTE Confidence: 0.906106616666667

00:34:12.380 --> 00:34:14.636 talk more about that.

NOTE Confidence: 0.906106616666667

00:34:14.636 --> 00:34:18.040 Uhm, in general, you might wonder, well,

NOTE Confidence: 0.906106616666667

00:34:18.040 --> 00:34:21.480 why shall we even deal with brain tumors?

NOTE Confidence: 0.906106616666667

00:34:21.480 --> 00:34:23.488 Yeah, they're relatively rare

NOTE Confidence: 0.906106616666667

00:34:23.488 --> 00:34:25.496 compared to other cancers,

NOTE Confidence: 0.906106616666667

00:34:25.500 --> 00:34:27.516 and when you look at the numbers in in

NOTE Confidence: 0.906106616666667

00:34:27.516 --> 00:34:29.999 a bit more detail, you realize that.

NOTE Confidence: 0.906106616666667

00:34:29.999 --> 00:34:32.164 Yes, well they are relatively

NOTE Confidence: 0.906106616666667

00:34:32.164 --> 00:34:34.528 rare compared to let's say breast,

NOTE Confidence: 0.906106616666667

00:34:34.530 --> 00:34:37.658 lung and other entities.

NOTE Confidence: 0.906106616666667

00:34:37.658 --> 00:34:40.890 UM, the outcome is rather devastating,

NOTE Confidence: 0.906106616666667

00:34:40.890 --> 00:34:42.843 so roughly estimated.

NOTE Confidence: 0.906106616666667

00:34:42.843 --> 00:34:46.324 We will find about 24,000

NOTE Confidence: 0.906106616666667

00:34:46.324 --> 00:34:49.820 patients with malignant glioma.

NOTE Confidence: 0.906106616666667

00:34:49.820 --> 00:34:55.028 The 85 year survival rate is rather low,

NOTE Confidence: 0.906106616666667

00:34:55.030 --> 00:34:57.422 it's 36% anti survivability

NOTE Confidence: 0.906106616666667

00:34:57.422 --> 00:35:00.245 rate for those two suffer.

NOTE Confidence: 0.906106616666667

00:35:00.245 --> 00:35:03.220 With a clear blastoma is really low,

NOTE Confidence: 0.906106616666667

00:35:03.220 --> 00:35:06.320 so it's it begs for innovation

NOTE Confidence: 0.906106616666667

00:35:06.320 --> 00:35:07.880 this entire field.

NOTE Confidence: 0.906106616666667

00:35:07.880 --> 00:35:10.480 The costs of treating patients

NOTE Confidence: 0.906106616666667

00:35:10.480 --> 00:35:13.160 with brain tumors or tremendous

NOTE Confidence: 0.906106616666667

00:35:13.160 --> 00:35:16.860 in in in simplified terms.

NOTE Confidence: 0.906106616666667

00:35:16.860 --> 00:35:18.420 But also we are illustrative,

NOTE Confidence: 0.906106616666667

00:35:18.420 --> 00:35:20.000 is this graph here.

NOTE Confidence: 0.906106616666667

00:35:20.000 --> 00:35:22.940 When you look at the survival rates,

NOTE Confidence: 0.906106616666667

00:35:22.940 --> 00:35:25.196 the five years or survival rates

NOTE Confidence: 0.906106616666667

00:35:25.196 --> 00:35:26.700 of children with leukemia.

NOTE Confidence: 0.906106616666667

00:35:26.700 --> 00:35:30.305 Right now, nine out of 10 surviving.

NOTE Confidence: 0.906106616666667

00:35:30.310 --> 00:35:31.902 Patients with breast cancer.

NOTE Confidence: 0.906106616666667

00:35:31.902 --> 00:35:32.300 Similarly,

NOTE Confidence: 0.906106616666667

00:35:32.300 --> 00:35:35.494 nine out of 10 survive when you

NOTE Confidence: 0.906106616666667

00:35:35.494 --> 00:35:37.366 look at patients with brain cancer.

NOTE Confidence: 0.906106616666667

00:35:37.370 --> 00:35:41.314 Now you're down to two per ten surviving.

NOTE Confidence: 0.906106616666667

00:35:41.320 --> 00:35:43.216 And then with glioblastoma,

NOTE Confidence: 0.906106616666667

00:35:43.216 --> 00:35:46.450 you're down to one pretend so you

NOTE Confidence: 0.906106616666667

00:35:46.450 --> 00:35:50.378 can see even in 2021 the field

NOTE Confidence: 0.906106616666667

00:35:50.378 --> 00:35:53.108 is begging for innovation and

NOTE Confidence: 0.906106616666667

00:35:53.108 --> 00:35:56.420 new approaches to handle this

NOTE Confidence: 0.906106616666667

00:35:56.420 --> 00:35:58.547 absolutely devastating disease.

NOTE Confidence: 0.906106616666667

00:35:58.550 --> 00:36:02.160 And so we this year there is a new W

NOTE Confidence: 0.906106616666667

00:36:02.261 --> 00:36:06.678 classification of brain tumors coming out,

NOTE Confidence: 0.906106616666667

00:36:06.678 --> 00:36:09.263 which is dramatically significantly

NOTE Confidence: 0.906106616666667

00:36:09.263 --> 00:36:10.682 different from before,

NOTE Confidence: 0.906106616666667

00:36:10.682 --> 00:36:12.574 and so I felt.

NOTE Confidence: 0.906106616666667

00:36:12.580 --> 00:36:14.940 Since we have a very large and active

NOTE Confidence: 0.906106616666667

00:36:14.940 --> 00:36:17.180 neuro clinical neuroscience community here,

NOTE Confidence: 0.906106616666667

00:36:17.180 --> 00:36:21.014 it would be good to discuss a few of

NOTE Confidence: 0.906106616666667

00:36:21.014 --> 00:36:23.600 those new changes because they will

NOTE Confidence: 0.906106616666667

00:36:23.690 --> 00:36:27.008 affect how we all practice and interact,

NOTE Confidence: 0.906106616666667

00:36:27.010 --> 00:36:29.368 and so for today I thought

NOTE Confidence: 0.906106616666667

00:36:29.368 --> 00:36:31.338 I'll show you a few.

NOTE Confidence: 0.906106616666667

00:36:31.338 --> 00:36:33.308 Some of the general changes

NOTE Confidence: 0.906106616666667

00:36:33.308 --> 00:36:34.096 and recommendations,

NOTE Confidence: 0.906106616666667

00:36:34.100 --> 00:36:35.865 then go into tumor specific

NOTE Confidence: 0.906106616666667

00:36:35.865 --> 00:36:38.310 changes and at the end I'd like

NOTE Confidence: 0.906106616666667

00:36:38.310 --> 00:36:40.690 to conclude with one of our own

NOTE Confidence: 0.906106616666667

00:36:40.690 --> 00:36:42.809 cases and methadone analysis.

NOTE Confidence: 0.906106616666667

00:36:42.810 --> 00:36:44.220 For brain tumors,

NOTE Confidence: 0.906106616666667

00:36:44.220 --> 00:36:46.570 which is now also recommended.

NOTE Confidence: 0.906106616666667

00:36:46.570 --> 00:36:47.442 And so.

NOTE Confidence: 0.906106616666667

00:36:47.442 --> 00:36:50.494 Why is it overall so important to

NOTE Confidence: 0.906106616666667

00:36:50.494 --> 00:36:53.367 accurately classify tumor samples well?

NOTE Confidence: 0.906106616666667

00:36:53.370 --> 00:36:56.666 The multiple aspects personalized,

NOTE Confidence: 0.906106616666667

00:36:56.666 --> 00:36:59.138 individualized patient care.

NOTE Confidence: 0.906106616666667

00:36:59.140 --> 00:37:01.768 It contributes to prognosis

NOTE Confidence: 0.906106616666667

00:37:01.768 --> 00:37:04.396 AIDS in therapeutic guidance.

NOTE Confidence: 0.906106616666667

00:37:04.400 --> 00:37:06.540 It's click current critical for

NOTE Confidence: 0.906106616666667

00:37:06.540 --> 00:37:08.252 clinical trial enrollment and

NOTE Confidence: 0.906106616666667

00:37:08.252 --> 00:37:10.970 also then we sent it for the

NOTE Confidence: 0.906106616666667

00:37:10.970 --> 00:37:12.840 interpretation of clinical trials data.

NOTE Confidence: 0.906106616666667

00:37:12.840 --> 00:37:15.285 The enrollment in experimental studies

NOTE Confidence: 0.906106616666667

00:37:15.285 --> 00:37:18.737 and here also data and analysis

NOTE Confidence: 0.906106616666667

00:37:18.737 --> 00:37:21.622 interpretation the evaluation of

NOTE Confidence: 0.906106616666667

00:37:21.622 --> 00:37:24.238 population based disease trends.

NOTE Confidence: 0.906106616666667

00:37:24.240 --> 00:37:26.360 Are aided by accurate classification

NOTE Confidence: 0.906106616666667

00:37:26.360 --> 00:37:29.038 system and also you know affected

NOTE Confidence: 0.906106616666667

00:37:29.038 --> 00:37:31.468 is allocation of resources by

NOTE Confidence: 0.906106616666667

00:37:31.468 --> 00:37:33.412 governments and health insurers

NOTE Confidence: 0.906106616666667

00:37:33.490 --> 00:37:36.346 to support health care and so.

NOTE Confidence: 0.906106616666667

00:37:36.346 --> 00:37:39.661 UW now publishes periodic revisions

NOTE Confidence: 0.906106616666667

00:37:39.661 --> 00:37:41.650 of tumor classifications,

NOTE Confidence: 0.906106616666667

00:37:41.650 --> 00:37:44.278 and these have therefore very diverse

NOTE Confidence: 0.906106616666667

00:37:44.278 --> 00:37:47.131 and important effects on many aspects

NOTE Confidence: 0.906106616666667

00:37:47.131 --> 00:37:50.203 actually of individual and population health,

NOTE Confidence: 0.906106616666667

00:37:50.210 --> 00:37:50.627 however,

NOTE Confidence: 0.906106616666667

00:37:50.627 --> 00:37:52.295 and David Luiz emphasize

NOTE Confidence: 0.906106616666667

00:37:52.295 --> 00:37:54.380 this at the last meeting.

NOTE Confidence: 0.858850258

00:37:54.380 --> 00:37:58.940 All classifications are somewhat imperfect.

NOTE Confidence: 0.858850258

00:37:58.940 --> 00:38:01.952 They are imperfect representations,

NOTE Confidence: 0.858850258

00:38:01.952 --> 00:38:03.864 and represent of.

NOTE Confidence: 0.858850258

00:38:03.864 --> 00:38:06.288 Come off in this state and

NOTE Confidence: 0.858850258

00:38:06.288 --> 00:38:08.049 the representative state of

NOTE Confidence: 0.858850258

00:38:08.049 --> 00:38:10.379 understanding at a particular time.

NOTE Confidence: 0.858850258

00:38:10.380 --> 00:38:12.144 And the interpretations.

NOTE Confidence: 0.858850258

00:38:12.144 --> 00:38:16.660 Of a limited number of experts and so.

NOTE Confidence: 0.858850258

00:38:16.660 --> 00:38:18.148 You see their limitations,

NOTE Confidence: 0.858850258

00:38:18.148 --> 00:38:19.636 their works in progress,

NOTE Confidence: 0.858850258

00:38:19.640 --> 00:38:22.210 yet they're still extremely needed.

NOTE Confidence: 0.819954185714286

00:38:25.880 --> 00:38:28.288 Just to shed light on the 5th.

NOTE Confidence: 0.819954185714286

00:38:28.290 --> 00:38:30.656 So the when you look at how

NOTE Confidence: 0.819954185714286

00:38:30.656 --> 00:38:32.100 the classification emerged,

NOTE Confidence: 0.819954185714286

00:38:32.100 --> 00:38:35.817 the first one was published in 17-9.

NOTE Confidence: 0.819954185714286

00:38:35.817 --> 00:38:38.319 The first edition then evolved over

NOTE Confidence: 0.819954185714286

00:38:38.319 --> 00:38:41.323 the years that the time gaps are

NOTE Confidence: 0.819954185714286

00:38:41.323 --> 00:38:43.924 at times quite considerable from

NOTE Confidence: 0.819954185714286

00:38:43.924 --> 00:38:49.284 the from 20 from 2007 to 2016 there

NOTE Confidence: 0.819954185714286

00:38:49.284 --> 00:38:52.340 was an almost 10 year time span,

NOTE Confidence: 0.819954185714286

00:38:52.340 --> 00:38:54.254 however the 2016.

NOTE Confidence: 0.819954185714286

00:38:54.254 --> 00:38:57.876 In addition, was a more or less a

NOTE Confidence: 0.819954185714286

00:38:57.876 --> 00:39:00.629 revised edition of the 4th edition,

NOTE Confidence: 0.819954185714286

00:39:00.630 --> 00:39:03.442 which received 2007 version,

NOTE Confidence: 0.819954185714286

00:39:03.442 --> 00:39:06.514 and here for the first time.

NOTE Confidence: 0.819954185714286

00:39:06.514 --> 00:39:08.594 Definitions were now based on

NOTE Confidence: 0.819954185714286

00:39:08.594 --> 00:39:11.256 the combination of morphologic

NOTE Confidence: 0.819954185714286

00:39:11.256 --> 00:39:13.416 and genetic characteristics.

NOTE Confidence: 0.819954185714286

00:39:13.420 --> 00:39:16.988 This was a huge shift in the field.

NOTE Confidence: 0.819954185714286

00:39:16.990 --> 00:39:20.790 And I feel that was celebrated by one.

NOTE Confidence: 0.819954185714286

00:39:20.790 --> 00:39:24.532 By some there's a paper in Kansas, L.

NOTE Confidence: 0.819954185714286

00:39:24.532 --> 00:39:27.626 Which caused the fall of the optical

NOTE Confidence: 0.819954185714286

00:39:27.626 --> 00:39:30.452 wall freedom from the tyranny of

NOTE Confidence: 0.819954185714286

00:39:30.452 --> 00:39:33.442 the microscope and the molecular

NOTE Confidence: 0.819954185714286

00:39:33.442 --> 00:39:37.432 changes stand could demonstrate this

NOTE Confidence: 0.819954185714286

00:39:37.432 --> 00:39:40.560 improves humor risk stratification.

NOTE Confidence: 0.819954185714286

00:39:40.560 --> 00:39:46.018 Uhm, the from 2016 to now to 2021.

NOTE Confidence: 0.819954185714286

00:39:46.018 --> 00:39:46.616 Again,

NOTE Confidence: 0.819954185714286

00:39:46.616 --> 00:39:51.400 you know time passed and but now with

NOTE Confidence: 0.819954185714286

00:39:51.521 --> 00:39:54.724 the advents in molecular technology.

NOTE Confidence: 0.819954185714286

00:39:54.724 --> 00:39:58.279 Information is gathered as lightspeed

NOTE Confidence: 0.819954185714286

00:39:58.279 --> 00:40:03.190 and so in order to bridge these gaps

NOTE Confidence: 0.819954185714286

00:40:03.190 --> 00:40:07.470 between WTO classifications, the.

NOTE Confidence: 0.819954185714286

00:40:07.470 --> 00:40:08.916 Consortium was formed.

NOTE Confidence: 0.819954185714286

00:40:08.916 --> 00:40:11.326 They see impact now consortium,

NOTE Confidence: 0.819954185714286

00:40:11.330 --> 00:40:14.342 which is a consortium to inform

NOTE Confidence: 0.819954185714286

00:40:14.342 --> 00:40:16.350 molecular and practical approaches

NOTE Confidence: 0.819954185714286

00:40:16.427 --> 00:40:18.099 to CNS tumor taxonomy.

NOTE Confidence: 0.819954185714286

00:40:18.100 --> 00:40:21.360 The goal here is to.

NOTE Confidence: 0.819954185714286

00:40:21.360 --> 00:40:23.860 Publish new developments in

NOTE Confidence: 0.819954185714286

00:40:23.860 --> 00:40:26.360 molecular diagnostics and inform

NOTE Confidence: 0.819954185714286

00:40:26.360 --> 00:40:29.476 the clinical world so this could

NOTE Confidence: 0.819954185714286

00:40:29.476 --> 00:40:32.146 be implemented along the way and

NOTE Confidence: 0.819954185714286

00:40:32.233 --> 00:40:35.285 there wouldn't be a long gap until

NOTE Confidence: 0.819954185714286

00:40:35.285 --> 00:40:36.924 new changes were implemented.

NOTE Confidence: 0.819954185714286

00:40:36.924 --> 00:40:39.516 If you wonder what the now stands for,

NOTE Confidence: 0.819954185714286

00:40:39.520 --> 00:40:42.070 it means not officially who,

NOTE Confidence: 0.819954185714286

00:40:42.070 --> 00:40:43.698 because this consortium was

NOTE Confidence: 0.819954185714286

00:40:43.698 --> 00:40:45.733 established in 2016 and basically

NOTE Confidence: 0.819954185714286

00:40:45.733 --> 00:40:48.137 the authors of all these C impact

NOTE Confidence: 0.819954185714286

00:40:48.137 --> 00:40:50.530 papers are also authors and editors

NOTE Confidence: 0.819954185714286

00:40:50.530 --> 00:40:52.600 of the new double classification.

NOTE Confidence: 0.819954185714286

00:40:52.600 --> 00:40:53.860 So it's a very.

NOTE Confidence: 0.819954185714286

00:40:53.860 --> 00:40:56.092 It's a very homogeneous group that works

NOTE Confidence: 0.819954185714286

00:40:56.092 --> 00:41:00.035 on this the the expert editorial group

NOTE Confidence: 0.819954185714286

00:41:00.035 --> 00:41:03.430 is composed of international group.

NOTE Confidence: 0.819954185714286

00:41:03.430 --> 00:41:05.166 Unfortunately the Blue Book

NOTE Confidence: 0.819954185714286

00:41:05.166 --> 00:41:07.336 is not yet published there.

NOTE Confidence: 0.819954185714286

00:41:07.340 --> 00:41:11.122 I was told by David Lewis there are

NOTE Confidence: 0.819954185714286

00:41:11.122 --> 00:41:14.488 production issues related to the pandemic.

NOTE Confidence: 0.819954185714286

00:41:14.490 --> 00:41:15.137 However,

NOTE Confidence: 0.819954185714286

00:41:15.137 --> 00:41:19.019 in the meantime I review paper,

NOTE Confidence: 0.819954185714286

00:41:19.020 --> 00:41:20.855 came out in neuro Oncology

NOTE Confidence: 0.819954185714286

00:41:20.855 --> 00:41:22.970 which is available and can be.

NOTE Confidence: 0.819954185714286

00:41:22.970 --> 00:41:25.760 Teen and so I quickly would like to go

NOTE Confidence: 0.819954185714286

00:41:25.760 --> 00:41:28.048 through a few general changes before I

NOTE Confidence: 0.819954185714286

00:41:28.048 --> 00:41:33.010 go into too much specific changes and.

NOTE Confidence: 0.819954185714286

00:41:33.010 --> 00:41:36.810 The significant change is really

NOTE Confidence: 0.819954185714286

00:41:36.810 --> 00:41:40.610 related to the report structure,

NOTE Confidence: 0.819954185714286

00:41:40.610 --> 00:41:45.422 and here we have now a so-called integrated

NOTE Confidence: 0.819954185714286

00:41:45.422 --> 00:41:48.646 histo molecular classification system.

NOTE Confidence: 0.819954185714286

00:41:48.650 --> 00:41:50.858 It's already in place at Yale,

NOTE Confidence: 0.819954185714286

00:41:50.860 --> 00:41:53.389 and this is what one of our reports looks

NOTE Confidence: 0.819954185714286

00:41:53.389 --> 00:41:55.806 like and so you have four layers there.

NOTE Confidence: 0.819954185714286

00:41:55.806 --> 00:41:57.936 Two is the histopathological diagnosis,

NOTE Confidence: 0.819954185714286

00:41:57.940 --> 00:41:58.804 which would be here.

NOTE Confidence: 0.819954185714286

00:41:58.804 --> 00:41:59.236 For example,

NOTE Confidence: 0.819954185714286

00:41:59.240 --> 00:42:03.584 glioblastoma layers 3 then defines the

NOTE Confidence: 0.819954185714286

00:42:03.584 --> 00:42:08.132 grade would be here for and then layer

NOTE Confidence: 0.819954185714286

00:42:08.132 --> 00:42:10.516 4 forms the molecular information,

NOTE Confidence: 0.819954185714286

00:42:10.516 --> 00:42:13.756 which would be a list of molecular

NOTE Confidence: 0.819954185714286

00:42:13.756 --> 00:42:16.972 data here and in order to make sense

NOTE Confidence: 0.819954185714286

00:42:16.972 --> 00:42:19.799 out of this different components.

NOTE Confidence: 0.819954185714286

00:42:19.800 --> 00:42:23.744 A layer one is added which forms

NOTE Confidence: 0.819954185714286

00:42:23.744 --> 00:42:26.029 the integrated diagnosis and this

NOTE Confidence: 0.819954185714286

00:42:26.029 --> 00:42:28.722 is the combined tissue based

NOTE Confidence: 0.819954185714286

00:42:28.722 --> 00:42:31.218 histological and molecular diagnosis.

NOTE Confidence: 0.819954185714286

00:42:31.220 --> 00:42:33.135 And so this is continuously

NOTE Confidence: 0.819954185714286

00:42:33.135 --> 00:42:35.050 expanding with the addition of

NOTE Confidence: 0.819954185714286

00:42:35.121 --> 00:42:37.266 additional newer markers and the

NOTE Confidence: 0.819954185714286

00:42:37.266 --> 00:42:39.411 integrated diagnosis is really a

NOTE Confidence: 0.830618144285714

00:42:39.484 --> 00:42:42.230 collaborative, team based effort where we,

NOTE Confidence: 0.830618144285714

00:42:42.230 --> 00:42:45.235 as neuropathologists from surface as

NOTE Confidence: 0.830618144285714

00:42:45.235 --> 00:42:49.200 central role for the integration component.

NOTE Confidence: 0.830618144285714

00:42:49.200 --> 00:42:51.370 We closely work with neurosurgery,

NOTE Confidence: 0.830618144285714

00:42:51.370 --> 00:42:53.872 neurology, neuro oncology,

NOTE Confidence: 0.830618144285714

00:42:53.872 --> 00:42:57.208 genetics, and new radiology,

NOTE Confidence: 0.830618144285714

00:42:57.210 --> 00:42:59.814 and then integrate from

NOTE Confidence: 0.830618144285714

00:42:59.814 --> 00:43:01.767 this integrated diagnosis.

NOTE Confidence: 0.830618144285714

00:43:01.770 --> 00:43:05.032 Which then is used by neurooncology in

NOTE Confidence: 0.830618144285714

00:43:05.032 --> 00:43:07.559 radiation oncology foot for treatment.

NOTE Confidence: 0.830618144285714

00:43:07.560 --> 00:43:12.698 So it's a very intimately integrated process.

NOTE Confidence: 0.830618144285714

00:43:12.700 --> 00:43:17.120 A few words to just a few nomenclature

NOTE Confidence: 0.830618144285714

00:43:17.120 --> 00:43:20.381 issues, so when a diagnosis cannot

NOTE Confidence: 0.830618144285714

00:43:20.381 --> 00:43:24.600 be made and the term Nos is used,

NOTE Confidence: 0.830618144285714

00:43:24.600 --> 00:43:27.270 meaning non not otherwise specified,

NOTE Confidence: 0.830618144285714

00:43:27.270 --> 00:43:29.030 this just means that molecular

NOTE Confidence: 0.830618144285714

00:43:29.030 --> 00:43:30.790 information is not available and

NOTE Confidence: 0.830618144285714

00:43:30.852 --> 00:43:32.527 there could be multiple reasons

NOTE Confidence: 0.830618144285714

00:43:32.527 --> 00:43:34.490 it's either not available or not.

NOTE Confidence: 0.830618144285714

00:43:34.490 --> 00:43:37.282 The test was not performed or simply was

NOTE Confidence: 0.830618144285714

00:43:37.282 --> 00:43:41.584 not successful, whereas the NEC term.

NOTE Confidence: 0.830618144285714

00:43:41.584 --> 00:43:44.287 Not elsewhere classified,

NOTE Confidence: 0.830618144285714

00:43:44.290 --> 00:43:46.525 just indicates that the test

NOTE Confidence: 0.830618144285714

00:43:46.525 --> 00:43:47.866 was successfully performed.

NOTE Confidence: 0.830618144285714

00:43:47.870 --> 00:43:50.535 However, the test results simply

NOTE Confidence: 0.830618144285714

00:43:50.535 --> 00:43:54.910 do not fit into a known category,

NOTE Confidence: 0.830618144285714

00:43:54.910 --> 00:43:56.551 so further on.

NOTE Confidence: 0.830618144285714

00:43:56.551 --> 00:43:59.286 Now, in this new version,

NOTE Confidence: 0.830618144285714

00:43:59.290 --> 00:44:01.750 we're now distinguishing our

NOTE Confidence: 0.830618144285714

00:44:01.750 --> 00:44:04.210 grading from other classifications

NOTE Confidence: 0.830618144285714

00:44:04.210 --> 00:44:07.128 by adding the Hoos TNS grade,

NOTE Confidence: 0.830618144285714

00:44:07.130 --> 00:44:10.088 because this is meant to emphasize

NOTE Confidence: 0.830618144285714

00:44:10.088 --> 00:44:13.049 that the way the neuro Neuro.

NOTE Confidence: 0.830618144285714

00:44:13.049 --> 00:44:15.443 Who grades tumors is different from

NOTE Confidence: 0.830618144285714

00:44:15.443 --> 00:44:18.427 how it's done and you and your breast,

NOTE Confidence: 0.830618144285714

00:44:18.430 --> 00:44:20.464 for example.

NOTE Confidence: 0.830618144285714

00:44:20.464 --> 00:44:24.272 Further from the now we research,

NOTE Confidence: 0.830618144285714

00:44:24.272 --> 00:44:26.930 this might sound trivial using Arabic

NOTE Confidence: 0.830618144285714

00:44:27.007 --> 00:44:29.677 numerals instead of Roman numerals.

NOTE Confidence: 0.830618144285714

00:44:29.680 --> 00:44:30.548 And lastly,

NOTE Confidence: 0.830618144285714

00:44:30.548 --> 00:44:33.586 now is also grading within tumor types,

NOTE Confidence: 0.830618144285714

00:44:33.590 --> 00:44:36.474 and this is a bit more substantial.

NOTE Confidence: 0.830618144285714

00:44:36.480 --> 00:44:39.203 This is meant to provide more flexibility

NOTE Confidence: 0.830618144285714

00:44:39.203 --> 00:44:42.038 in using grade relative to tumor type.

NOTE Confidence: 0.830618144285714

00:44:42.040 --> 00:44:44.036 It should emphasize biological

NOTE Confidence: 0.830618144285714

00:44:44.036 --> 00:44:46.531 similarities within tumor types rather

NOTE Confidence: 0.830618144285714

00:44:46.531 --> 00:44:49.470 than just approximate clinical behavior,

NOTE Confidence: 0.830618144285714

00:44:49.470 --> 00:44:50.325 and it should.

NOTE Confidence: 0.830618144285714

00:44:50.325 --> 00:44:51.750 It conforms with who grading

NOTE Confidence: 0.830618144285714

00:44:51.750 --> 00:44:53.300 in non CNS tumor types.

NOTE Confidence: 0.830618144285714

00:44:53.300 --> 00:44:54.350 For example,

NOTE Confidence: 0.830618144285714

00:44:54.350 --> 00:44:57.500 we used to say astrocytoma IDH

NOTE Confidence: 0.830618144285714

00:44:57.500 --> 00:44:59.986 Mutant who's seen as great.

NOTE Confidence: 0.830618144285714

00:44:59.986 --> 00:45:04.729 Two or three or form when you have before,

NOTE Confidence: 0.830618144285714

00:45:04.730 --> 00:45:06.210 you could say, for example,

NOTE Confidence: 0.830618144285714

00:45:06.210 --> 00:45:09.278 I had a trim anaplastic

NOTE Confidence: 0.830618144285714

00:45:09.278 --> 00:45:10.846 astrocytoma who creates three.

NOTE Confidence: 0.830618144285714

00:45:10.850 --> 00:45:13.390 This is now obsolete.

NOTE Confidence: 0.830618144285714

00:45:13.390 --> 00:45:16.188 Now it's replaced and the

NOTE Confidence: 0.830618144285714

00:45:16.188 --> 00:45:17.220 nomenclature now would indicate

NOTE Confidence: 0.830618144285714

00:45:17.220 --> 00:45:19.110 that you have to say astrocytoma,

NOTE Confidence: 0.830618144285714

00:45:19.110 --> 00:45:20.456 IDH Mutant,

NOTE Confidence: 0.830618144285714

00:45:20.456 --> 00:45:23.148 who CNS great three.

NOTE Confidence: 0.830618144285714

00:45:23.150 --> 00:45:25.337 I think it will take a bit of time

NOTE Confidence: 0.830618144285714

00:45:25.337 --> 00:45:28.340 to get used to this overtime and the

NOTE Confidence: 0.830618144285714

00:45:28.340 --> 00:45:30.965 term glioblastoma now is exclusively.

NOTE Confidence: 0.830618144285714

00:45:30.970 --> 00:45:35.354 Served for the adult IDH wild type tumors,

NOTE Confidence: 0.830618144285714

00:45:35.360 --> 00:45:39.002 so the the stratification is really

NOTE Confidence: 0.830618144285714

00:45:39.002 --> 00:45:42.549 based on IDH status and so on.

NOTE Confidence: 0.830618144285714

00:45:42.549 --> 00:45:44.041 The humerus specific changes

NOTE Confidence: 0.830618144285714

00:45:44.041 --> 00:45:45.600 now go into this,

NOTE Confidence: 0.830618144285714

00:45:45.600 --> 00:45:50.110 so when you look at the 2016 WO list of

NOTE Confidence: 0.830618144285714

00:45:50.110 --> 00:45:53.064 tumors it has a wide range of entities.

NOTE Confidence: 0.830618144285714

00:45:53.064 --> 00:45:55.962 Terms like Mr Citic astrocytoma or here

NOTE Confidence: 0.830618144285714

00:45:55.962 --> 00:45:59.763 to use sarcoma epithelioid, do you blastoma?

NOTE Confidence: 0.830618144285714

00:45:59.763 --> 00:46:02.118 All these have been removed.

NOTE Confidence: 0.830618144285714

00:46:02.120 --> 00:46:04.512 Everything has been streamlined

NOTE Confidence: 0.830618144285714

00:46:04.512 --> 00:46:08.100 and reduced to three main groups,

NOTE Confidence: 0.830618144285714

00:46:08.100 --> 00:46:10.996 and these are the adult type diffuse gliomas,

NOTE Confidence: 0.830618144285714

00:46:11.000 --> 00:46:13.718 pediatric type diffuse, low grade glioma,

NOTE Confidence: 0.830618144285714

00:46:13.720 --> 00:46:16.004 Sandy Patrick type diffuse,

NOTE Confidence: 0.830618144285714

00:46:16.004 --> 00:46:17.717 high grade lumas.

NOTE Confidence: 0.830618144285714

00:46:17.720 --> 00:46:20.429 The pediatric type does not mean these

NOTE Confidence: 0.830618144285714

00:46:20.429 --> 00:46:22.409 are exclusively present in pediatric

NOTE Confidence: 0.830618144285714

00:46:22.409 --> 00:46:24.659 patients but they're often or more

NOTE Confidence: 0.830618144285714

00:46:24.659 --> 00:46:27.160 more readily seen in pediatric patients.

NOTE Confidence: 0.830618144285714

00:46:27.160 --> 00:46:29.952 We now when we look at this more

NOTE Confidence: 0.830618144285714

00:46:29.952 --> 00:46:32.358 closely so the astrocytoma now.

NOTE Confidence: 0.830618144285714

00:46:32.360 --> 00:46:35.048 We're talking now specifically

NOTE Confidence: 0.830618144285714

00:46:35.048 --> 00:46:37.064 about diffuse gliomas.

NOTE Confidence: 0.830618144285714

00:46:37.070 --> 00:46:40.220 There now is, it is the idea.

NOTE Confidence: 0.830618144285714

00:46:40.220 --> 00:46:42.460 Mutant status matters most,

NOTE Confidence: 0.830618144285714

00:46:42.460 --> 00:46:45.820 and the certification is based on

NOTE Confidence: 0.834308963333333

00:46:45.914 --> 00:46:48.944 astrocytoma IDH mutant and then the

NOTE Confidence: 0.834308963333333

00:46:48.944 --> 00:46:52.296 grading is based on grade 2-3 and

NOTE Confidence: 0.834308963333333

00:46:52.296 --> 00:46:54.285 four for the OLIGODENDROGLIOMAS.

NOTE Confidence: 0.834308963333333

00:46:54.285 --> 00:46:57.960 Again, IDH mutant status is very relevant.

NOTE Confidence: 0.834308963333333

00:46:57.960 --> 00:47:00.440 In addition to that,

NOTE Confidence: 0.834308963333333

00:47:00.440 --> 00:47:04.120 the 1P19 Q correlation status again,

NOTE Confidence: 0.834308963333333

00:47:04.120 --> 00:47:07.810 he DCNS grade goes up to two to three.

NOTE Confidence: 0.834308963333333

00:47:07.810 --> 00:47:10.834 And a glass stoma is exclusively

NOTE Confidence: 0.834308963333333

00:47:10.834 --> 00:47:14.069 reserved for IDH wild type tumors.

NOTE Confidence: 0.834308963333333

00:47:14.070 --> 00:47:15.598 And these are automatically

NOTE Confidence: 0.834308963333333

00:47:15.598 --> 00:47:17.126 who create 4 tumors.

NOTE Confidence: 0.834308963333333

00:47:17.130 --> 00:47:19.570 D pediatric type diffuse Low

NOTE Confidence: 0.834308963333333

00:47:19.570 --> 00:47:23.268 Bradley almost are now in.

NOTE Confidence: 0.834308963333333

00:47:23.270 --> 00:47:25.838 Now include diffuse astrocytomas

NOTE Confidence: 0.834308963333333

00:47:25.838 --> 00:47:30.262 with milk and milk LA mutations

NOTE Confidence: 0.834308963333333

00:47:30.262 --> 00:47:33.040 the angiocentric Luma.

NOTE Confidence: 0.834308963333333

00:47:33.040 --> 00:47:34.648 The polymorphous low grade

NOTE Confidence: 0.834308963333333

00:47:34.648 --> 00:47:36.658 neuroepithelial tumor of the young

NOTE Confidence: 0.834308963333333

00:47:36.658 --> 00:47:38.950 and then diffuse low grade lumas

NOTE Confidence: 0.834308963333333

00:47:38.950 --> 00:47:41.172 with MAP kinase alterations so you

NOTE Confidence: 0.834308963333333

00:47:41.172 --> 00:47:43.176 see it's very different group of

NOTE Confidence: 0.834308963333333

00:47:43.176 --> 00:47:45.395 tumors that's now front and center

NOTE Confidence: 0.834308963333333

00:47:45.395 --> 00:47:47.825 stage within a diffuse cleoma group,

NOTE Confidence: 0.834308963333333

00:47:47.830 --> 00:47:49.294 and then lastly high.

NOTE Confidence: 0.834308963333333

00:47:49.294 --> 00:47:49.660 Correctly,

NOTE Confidence: 0.834308963333333

00:47:49.660 --> 00:47:55.550 Omar Group includes H3K27 and altered 2 must,

NOTE Confidence: 0.834308963333333

00:47:55.550 --> 00:47:59.360 a new entity DH3G34 Mutant

NOTE Confidence: 0.834308963333333

00:47:59.360 --> 00:48:01.680 Group is now included.

NOTE Confidence: 0.834308963333333

00:48:01.680 --> 00:48:06.916 And also a new group deep diffuse

NOTE Confidence: 0.834308963333333

00:48:06.916 --> 00:48:09.970 pediatric type hydrate guma.

NOTE Confidence: 0.834308963333333

00:48:09.970 --> 00:48:12.884 Which is H3 wild type in wild type.

NOTE Confidence: 0.834308963333333

00:48:12.884 --> 00:48:16.020 Now with a high great great forward and

NOTE Confidence: 0.834308963333333

00:48:16.108 --> 00:48:19.188 nomenclature is part of it and then the

NOTE Confidence: 0.834308963333333

00:48:19.188 --> 00:48:21.981 last city infant type hemispherically

NOTE Confidence: 0.834308963333333

00:48:21.981 --> 00:48:25.006 Omaha for the adult type tumor tumors.

NOTE Confidence: 0.834308963333333

00:48:25.010 --> 00:48:27.170 There were also significant changes,

NOTE Confidence: 0.834308963333333

00:48:27.170 --> 00:48:30.245 so the diffusely infiltrative Astro

NOTE Confidence: 0.834308963333333

00:48:30.245 --> 00:48:34.200 City humor with an IDH mutation

NOTE Confidence: 0.834308963333333

00:48:34.200 --> 00:48:37.075 is morphologically in general well

NOTE Confidence: 0.834308963333333

00:48:37.075 --> 00:48:39.486 differentiated, lacks features of anaplasia.

NOTE Confidence: 0.834308963333333

00:48:39.486 --> 00:48:42.706 My target of activity is not detected

NOTE Confidence: 0.834308963333333

00:48:42.706 --> 00:48:45.794 or very low and what is absent and

NOTE Confidence: 0.834308963333333

00:48:45.794 --> 00:48:48.438 this is diagnostically relevant.

NOTE Confidence: 0.834308963333333

00:48:48.440 --> 00:48:51.820 Is microvascular proliferation and necrosis,

NOTE Confidence: 0.834308963333333

00:48:51.820 --> 00:48:54.655 and also there cannot be a city

NOTE Confidence: 0.834308963333333

00:48:54.655 --> 00:48:56.700 into a homozygous deletion?

NOTE Confidence: 0.834308963333333

00:48:56.700 --> 00:48:58.930 For the intermediate type here,

NOTE Confidence: 0.834308963333333

00:48:58.930 --> 00:49:02.140 formally called anaplastic as just cytoma,

NOTE Confidence: 0.834308963333333

00:49:02.140 --> 00:49:05.164 this is now the astrocytoma IDH

NOTE Confidence: 0.834308963333333

00:49:05.164 --> 00:49:08.900 mutant and now who CNS grade three.

NOTE Confidence: 0.834308963333333

00:49:08.900 --> 00:49:11.075 You have similar features except

NOTE Confidence: 0.834308963333333

00:49:11.075 --> 00:49:14.080 that now you find focalor dispersed.

NOTE Confidence: 0.834308963333333

00:49:14.080 --> 00:49:16.904 Anaplasia significant mitotic activity

NOTE Confidence: 0.834308963333333

00:49:16.904 --> 00:49:20.434 but still no faster proliferation,

NOTE Confidence: 0.834308963333333

00:49:20.440 --> 00:49:24.208 only crosses and no city can to a

NOTE Confidence: 0.834308963333333

00:49:24.208 --> 00:49:27.858 deletion rest for the highest grade now.

NOTE Confidence: 0.834308963333333

00:49:27.860 --> 00:49:30.158 Which is no longer called glioblastoma,

NOTE Confidence: 0.834308963333333

00:49:30.160 --> 00:49:34.836 but this is the astrocytoma IDH mutant.

NOTE Confidence: 0.834308963333333

00:49:34.840 --> 00:49:38.578 Suppose CNS great for you have features

NOTE Confidence: 0.834308963333333

00:49:38.580 --> 00:49:40.910 of a diffusely infiltrative Astro,

NOTE Confidence: 0.834308963333333

00:49:40.910 --> 00:49:43.500 static new class and with.

NOTE Confidence: 0.834308963333333

00:49:43.500 --> 00:49:47.310 And IDH mutation that exhibits

NOTE Confidence: 0.834308963333333

00:49:47.310 --> 00:49:49.596 also microvascular proliferation,

NOTE Confidence: 0.834308963333333

00:49:49.600 --> 00:49:50.036 necrosis,

NOTE Confidence: 0.834308963333333

00:49:50.036 --> 00:49:53.088 and in this case also sitting case

NOTE Confidence: 0.834308963333333

00:49:53.088 --> 00:49:56.647 IDK and to a homozygous deletion or

NOTE Confidence: 0.834308963333333

00:49:56.647 --> 00:49:59.247 any combination of these features.

NOTE Confidence: 0.834308963333333

00:49:59.250 --> 00:50:03.060 So overall. Do they drive home?

NOTE Confidence: 0.834308963333333

00:50:03.060 --> 00:50:05.935 Point is the diagnosis anaplastic

NOTE Confidence: 0.834308963333333

00:50:05.935 --> 00:50:08.810 astrocytoma IDH mutant and glioblastoma

NOTE Confidence: 0.834308963333333

00:50:08.893 --> 00:50:11.725 IDH mutant are no longer recommended

NOTE Confidence: 0.834308963333333

00:50:11.730 --> 00:50:16.010 and the city KN 2A and B homozygous

NOTE Confidence: 0.834308963333333

00:50:16.010 --> 00:50:19.165 deletions are molecular markers of whose

NOTE Confidence: 0.834308963333333

00:50:19.165 --> 00:50:25.029 in S grade 4 in an idea mutant astrocytoma.

NOTE Confidence: 0.834308963333333

00:50:25.030 --> 00:50:29.430 Uhm, the criteria for Clyde Blastoma now are

NOTE Confidence: 0.834308963333333

00:50:29.430 --> 00:50:33.930 limited to exclusively IDH wild type tumors.

NOTE Confidence: 0.834308963333333

00:50:33.930 --> 00:50:37.596 And here you find diffuse associated

NOTE Confidence: 0.834308963333333

00:50:37.596 --> 00:50:40.040 tumors with microvascular proliferation

NOTE Confidence: 0.834308963333333

00:50:40.129 --> 00:50:42.423 or in the past it used to be an end.

NOTE Confidence: 0.834308963333333

00:50:42.430 --> 00:50:43.822 Now it's just or you need

NOTE Confidence: 0.834308963333333

00:50:43.822 --> 00:50:44.750 one of those features,

NOTE Confidence: 0.834308963333333

00:50:44.750 --> 00:50:48.509 or you have a molecular defined tumor.

NOTE Confidence: 0.834308963333333

00:50:48.510 --> 00:50:51.306 Third promoter mutation,

NOTE Confidence: 0.834308963333333

00:50:51.306 --> 00:50:54.340 EGFR gene F receptor gene,

NOTE Confidence: 0.834308963333333

00:50:54.340 --> 00:50:55.120 and if.

NOTE Confidence: 0.834308963333333

00:50:55.120 --> 00:50:58.378 Amplification or plus 7 -- 10

NOTE Confidence: 0.834308963333333

00:50:58.378 --> 00:51:00.130 chromosome copy number changes.

NOTE Confidence: 0.708575286428571

00:51:02.170 --> 00:51:04.938 DIDID H1 type diffuse kioma with any of

NOTE Confidence: 0.708575286428571

00:51:04.938 --> 00:51:07.308 these features is called a glioblastoma.

NOTE Confidence: 0.708575286428571

00:51:07.310 --> 00:51:10.910 Who CNS Grade 4.

NOTE Confidence: 0.708575286428571

00:51:10.910 --> 00:51:14.179 So the question arises, how do you,

NOTE Confidence: 0.708575286428571

00:51:14.180 --> 00:51:16.068 you know, handle you plus two more now.

NOTE Confidence: 0.708575286428571

00:51:16.070 --> 00:51:19.640 So there are two options.

NOTE Confidence: 0.708575286428571

00:51:19.640 --> 00:51:21.986 And this is not necessarily trivial,

NOTE Confidence: 0.708575286428571

00:51:21.990 --> 00:51:25.686 so the case with diffuse kiyama without

NOTE Confidence: 0.708575286428571

00:51:25.686 --> 00:51:28.030 microvascular proliferation or necrosis.

NOTE Confidence: 0.708575286428571

00:51:28.030 --> 00:51:31.318 So without anaplastic features it is

NOTE Confidence: 0.708575286428571

00:51:31.318 --> 00:51:35.189 logically not really a hit glioblastoma,

NOTE Confidence: 0.708575286428571

00:51:35.190 --> 00:51:39.460 but it is a glioblastoma when it is IDH,

NOTE Confidence: 0.708575286428571

00:51:39.460 --> 00:51:43.660 wild type and displays each Fr amplification.

NOTE Confidence: 0.708575286428571

00:51:43.660 --> 00:51:47.738 Third promote imitation or plus 7 -- 10 E 10.

NOTE Confidence: 0.708575286428571

00:51:47.738 --> 00:51:50.650 Whereas when you have a true histological

NOTE Confidence: 0.708575286428571

00:51:50.742 --> 00:51:53.854 glioblastoma where you see morphologic

NOTE Confidence: 0.708575286428571

00:51:53.854 --> 00:51:58.644 features of anaplasia like Vasco preparation.

NOTE Confidence: 0.708575286428571

00:51:58.644 --> 00:51:59.658 Only crosses,

NOTE Confidence: 0.708575286428571

00:51:59.658 --> 00:52:01.686 it's not ugly blastoma.

NOTE Confidence: 0.708575286428571

00:52:01.690 --> 00:52:05.169 It's then a he still logically blows,

NOTE Confidence: 0.708575286428571

00:52:05.170 --> 00:52:07.948 not clear plus stoma with IDH

NOTE Confidence: 0.708575286428571

00:52:07.948 --> 00:52:10.960 mutation would then be an astrocytoma

NOTE Confidence: 0.708575286428571

00:52:10.960 --> 00:52:13.996 IDH mutant grade four so the

NOTE Confidence: 0.708575286428571

00:52:13.996 --> 00:52:16.684 term glioblastoma is not used its

NOTE Confidence: 0.708575286428571

00:52:16.684 --> 00:52:19.500 astrocytoma IDH mutant who created for.

NOTE Confidence: 0.8318853225

00:52:21.820 --> 00:52:24.676 For the pediatric group, then we have

NOTE Confidence: 0.8318853225

00:52:24.676 --> 00:52:27.399 the entities I already mentioned.

NOTE Confidence: 0.8318853225

00:52:27.400 --> 00:52:30.568 I just wanted to point out the diffuse low

NOTE Confidence: 0.8318853225

00:52:30.568 --> 00:52:33.638 grade leoma with the map kinase pathway

NOTE Confidence: 0.8318853225

00:52:33.638 --> 00:52:36.791 alterations where you have several entities.

NOTE Confidence: 0.8318853225

00:52:36.791 --> 00:52:41.410 Now within the FGF receptor category,

NOTE Confidence: 0.8318853225

00:52:41.410 --> 00:52:44.460 where you have duplications mutations,

NOTE Confidence: 0.8318853225

00:52:44.460 --> 00:52:49.228 be roughest involved or again into a D pad.

NOTE Confidence: 0.8318853225

00:52:49.228 --> 00:52:51.276 Pediatric type diffuse tactically.

NOTE Confidence: 0.8318853225

00:52:51.280 --> 00:52:52.930 Almost this is a relatively.

NOTE Confidence: 0.8318853225

00:52:52.930 --> 00:52:54.834 Unusual entity in here.

NOTE Confidence: 0.8318853225

00:52:54.834 --> 00:52:57.214 You have some involvement of

NOTE Confidence: 0.8318853225

00:52:57.214 --> 00:52:59.790 PDGF receptor amplifications,

NOTE Confidence: 0.8318853225

00:52:59.790 --> 00:53:04.780 or EGFR amplifications or milk.

NOTE Confidence: 0.8318853225

00:53:04.780 --> 00:53:07.258 Others, when you then go beyond the

NOTE Confidence: 0.8318853225

00:53:07.258 --> 00:53:09.250 diffuse gliomas, you look at Leo,

NOTE Confidence: 0.8318853225

00:53:09.250 --> 00:53:10.569 neuronal, and neuronal tumors.

NOTE Confidence: 0.8318853225

00:53:10.569 --> 00:53:12.900 I just want to point out there

NOTE Confidence: 0.8318853225

00:53:12.965 --> 00:53:15.120 were few additional tumors added,

NOTE Confidence: 0.8318853225

00:53:15.120 --> 00:53:17.652 like the high grade astrocytoma with

NOTE Confidence: 0.8318853225

00:53:17.652 --> 00:53:20.030 pilot features within the glue,

NOTE Confidence: 0.8318853225

00:53:20.030 --> 00:53:22.070 neuronal and neuronal tumors,

NOTE Confidence: 0.8318853225

00:53:22.070 --> 00:53:23.965 and unusual tumor diffuse clonal

NOTE Confidence: 0.8318853225

00:53:23.965 --> 00:53:26.344 tumor with oligo dentro cleoma like

NOTE Confidence: 0.8318853225

00:53:26.344 --> 00:53:28.028 features and nuclear clusters.

NOTE Confidence: 0.8318853225

00:53:28.030 --> 00:53:31.556 Myxoid Cleo neuronal tumors and the

NOTE Confidence: 0.8318853225

00:53:31.556 --> 00:53:34.260 multinodular backlighting neuronal tumor.

NOTE Confidence: 0.8318853225

00:53:34.260 --> 00:53:35.870 Uhm?

NOTE Confidence: 0.8318853225

00:53:35.870 --> 00:53:38.000 Major changes were also seen

NOTE Confidence: 0.8318853225

00:53:38.000 --> 00:53:40.130 added to the EPENDYMAL tumors.

NOTE Confidence: 0.8318853225

00:53:40.130 --> 00:53:43.400 Appendable tumors are those with a

NOTE Confidence: 0.8318853225

00:53:43.400 --> 00:53:47.160 relatively isomorphic appearance which

NOTE Confidence: 0.8318853225

00:53:47.160 --> 00:53:51.440 form pseudorosettes around vasculature.

NOTE Confidence: 0.8318853225

00:53:51.440 --> 00:53:53.330 They're linked to the ventricular

NOTE Confidence: 0.8318853225

00:53:53.330 --> 00:53:54.086 system mostly,

NOTE Confidence: 0.8318853225

00:53:54.090 --> 00:53:57.162 and so this was the original

NOTE Confidence: 0.8318853225

00:53:57.162 --> 00:53:58.698 classification in 2016.

NOTE Confidence: 0.8318853225

00:53:58.700 --> 00:54:01.640 Now this is abolished and the

NOTE Confidence: 0.8318853225

00:54:01.640 --> 00:54:05.004 classification is now based on location

NOTE Confidence: 0.8318853225

00:54:05.004 --> 00:54:07.640 Histology and genetic alterations.

NOTE Confidence: 0.8318853225

00:54:07.640 --> 00:54:11.666 And here we have location based

NOTE Confidence: 0.8318853225

00:54:11.666 --> 00:54:14.568 Supratentorial intro tutorial spinal and

NOTE Confidence: 0.8318853225

00:54:14.568 --> 00:54:17.676 then lastly a few added two additional

NOTE Confidence: 0.8318853225

00:54:17.676 --> 00:54:20.265 entities to MC so popular in Panama.

NOTE Confidence: 0.8318853225

00:54:20.270 --> 00:54:21.870 And these soccer pending normal.

NOTE Confidence: 0.8318853225

00:54:21.870 --> 00:54:23.790 And when we look at those.

NOTE Confidence: 0.8318853225

00:54:23.790 --> 00:54:26.942 In in greater detail,

NOTE Confidence: 0.8318853225

00:54:26.942 --> 00:54:29.609 the supratentorial ependymoma's used to

NOTE Confidence: 0.8318853225

00:54:29.609 --> 00:54:32.800 be known with a real or fusion partner.

NOTE Confidence: 0.8318853225

00:54:32.800 --> 00:54:36.796 This has been changed now the C 11 open

NOTE Confidence: 0.8318853225

00:54:36.796 --> 00:54:39.975 reading frame 95 now is dedicated as

NOTE Confidence: 0.8318853225

00:54:39.980 --> 00:54:43.448 CFTA and has multiple fusion partners.

NOTE Confidence: 0.8318853225

00:54:43.450 --> 00:54:47.090 These are usually hemispheric extra

NOTE Confidence: 0.8318853225

00:54:47.090 --> 00:54:51.334 ventricular tumors in adults and children,

NOTE Confidence: 0.8318853225

00:54:51.334 --> 00:54:54.366 and another option is also.

NOTE Confidence: 0.8318853225

00:54:54.366 --> 00:54:58.400 Yup, one fused to positive tumor.

NOTE Confidence: 0.8318853225

00:54:58.400 --> 00:55:01.280 The interesting to introspect the

NOTE Confidence: 0.8318853225

00:55:01.280 --> 00:55:03.584 info tutorial appending moments.

NOTE Confidence: 0.8318853225

00:55:03.590 --> 00:55:06.000 Are the posterior fossa pantomima

NOTE Confidence: 0.8318853225

00:55:06.000 --> 00:55:08.410 a Group A or B,

NOTE Confidence: 0.8318853225

00:55:08.410 --> 00:55:10.558 and these are primarily in infants.

NOTE Confidence: 0.8318853225

00:55:10.560 --> 00:55:12.880 Have an extremely poor prognosis.

NOTE Confidence: 0.8318853225

00:55:12.880 --> 00:55:16.624 Unknown to have H3K27M metalation.

NOTE Confidence: 0.8318853225

00:55:16.624 --> 00:55:21.503 Loss whereas here you have our attention

NOTE Confidence: 0.8318853225

00:55:21.503 --> 00:55:24.674 of the HTK 27 M in the B once and

NOTE Confidence: 0.8318853225

00:55:24.674 --> 00:55:26.868 they have a bit better prognosis.

NOTE Confidence: 0.8318853225

00:55:26.870 --> 00:55:30.045 This panel Panama must show

NOTE Confidence: 0.8318853225

00:55:30.045 --> 00:55:31.950 often mxi amplification.

NOTE Confidence: 0.8318853225

00:55:31.950 --> 00:55:35.508 They are they're very malignant now.

NOTE Confidence: 0.8318853225

00:55:35.510 --> 00:55:38.268 The mix of popular Panama was upgraded

NOTE Confidence: 0.8318853225

00:55:38.268 --> 00:55:41.307 now to Grade 2 used to be grade one.

NOTE Confidence: 0.8318853225

00:55:41.310 --> 00:55:44.470 There's no additional molecular

NOTE Confidence: 0.8318853225

00:55:44.470 --> 00:55:46.910 data to change anything,

NOTE Confidence: 0.8318853225

00:55:46.910 --> 00:55:48.810 and similarly for this update

NOTE Confidence: 0.8318853225

00:55:48.810 --> 00:55:51.110 pending more marks stays the same,

NOTE Confidence: 0.8318853225

00:55:51.110 --> 00:55:53.978 the embryonal tumors.

NOTE Confidence: 0.8318853225

00:55:53.980 --> 00:55:58.098 I have seen also significant changes.

NOTE Confidence: 0.8318853225

00:55:58.098 --> 00:56:02.490 These are as you can see in the image,

NOTE Confidence: 0.8318853225

00:56:02.490 --> 00:56:05.055 very aggressive appearing blue cell

NOTE Confidence: 0.8318853225

00:56:05.055 --> 00:56:08.708 tumors with high mitotic rate and here

NOTE Confidence: 0.8318853225

00:56:08.708 --> 00:56:11.972 we have now molecular defined and

NOTE Confidence: 0.8318853225

00:56:11.972 --> 00:56:15.238 histologically defined tumors in 2016.

NOTE Confidence: 0.8318853225

00:56:15.238 --> 00:56:17.416 There were four.

NOTE Confidence: 0.8318853225

00:56:17.420 --> 00:56:20.950 Subgroups and demolished the middle

NOTE Confidence: 0.8318853225

00:56:20.950 --> 00:56:23.774 stomachs were stratified according

NOTE Confidence: 0.8318853225

00:56:23.774 --> 00:56:27.016 to pathways which involved wind

NOTE Confidence: 0.8318853225

00:56:27.016 --> 00:56:30.186 pathway Sonic hedgehog pathway and

NOTE Confidence: 0.8318853225

00:56:30.186 --> 00:56:33.528 then non wind non Sonic hedgehog.

NOTE Confidence: 0.8318853225

00:56:33.530 --> 00:56:37.079 The wind pathway.

NOTE Confidence: 0.8318853225

00:56:37.080 --> 00:56:39.012 Middle of last time I had a

NOTE Confidence: 0.8318853225

00:56:39.012 --> 00:56:39.840 relatively good prognosis,

NOTE Confidence: 0.8318853225

00:56:39.840 --> 00:56:41.872 whereas the Sonic hedgehog

NOTE Confidence: 0.8318853225

00:56:41.872 --> 00:56:44.520 activated ones with up TP with a

NOTE Confidence: 0.856339172222222

00:56:44.520 --> 00:56:46.140 P53 mutation in addition,

NOTE Confidence: 0.856339172222222

00:56:46.140 --> 00:56:48.165 had a very poor prognosis.

NOTE Confidence: 0.856339172222222

00:56:48.170 --> 00:56:52.528 Now in in 2021 the Sonic Hedgehog

NOTE Confidence: 0.856339172222222

00:56:52.528 --> 00:56:55.088 Pathway Group went from 2

NOTE Confidence: 0.856339172222222

00:56:55.088 --> 00:56:57.258 subgroups to four subgroups,

NOTE Confidence: 0.856339172222222

00:56:57.260 --> 00:57:01.564 so those on the editorial board that were

NOTE Confidence: 0.856339172222222

00:57:01.564 --> 00:57:05.089 splitters one rather than the lumpers,

NOTE Confidence: 0.856339172222222

00:57:05.090 --> 00:57:07.806 and so we have now more subgroups.

NOTE Confidence: 0.856339172222222

00:57:07.810 --> 00:57:13.022 Lastly, whenever you have MC involved or P53,

NOTE Confidence: 0.856339172222222

00:57:13.022 --> 00:57:18.100 these survival goes down the.

NOTE Confidence: 0.856339172222222

00:57:18.100 --> 00:57:21.718 The non wind non the groups

NOTE Confidence: 0.856339172222222

00:57:21.718 --> 00:57:25.580 three and four now went from.

NOTE Confidence: 0.856339172222222

00:57:25.580 --> 00:57:28.550 You know, to eight subgroups,

NOTE Confidence: 0.856339172222222

00:57:28.550 --> 00:57:30.920 which is now a significant

NOTE Confidence: 0.856339172222222

00:57:30.920 --> 00:57:32.340 almost hairsplitting.

NOTE Confidence: 0.7465423925

00:57:34.680 --> 00:57:36.836 Attempt and you also have C or

NOTE Confidence: 0.7465423925

00:57:36.836 --> 00:57:38.659 wherever you have mic involved.

NOTE Confidence: 0.7465423925

00:57:38.660 --> 00:57:41.060 You have lower survival time.

NOTE Confidence: 0.7465423925

00:57:41.060 --> 00:57:44.010 We will see whether this.

NOTE Confidence: 0.7465423925

00:57:44.010 --> 00:57:46.270 Splitting major plus Thomas

NOTE Confidence: 0.7465423925

00:57:46.270 --> 00:57:49.095 UP will hold over time.

NOTE Confidence: 0.7465423925

00:57:49.100 --> 00:57:52.568 The molecular defined middle class Thomas,

NOTE Confidence: 0.7465423925

00:57:52.570 --> 00:57:54.751 however, demonstrate distinct

NOTE Confidence: 0.7465423925

00:57:54.751 --> 00:57:57.659 associations with morphologic patterns,

NOTE Confidence: 0.7465423925

00:57:57.660 --> 00:57:59.658 and here for all wind tumors

NOTE Confidence: 0.7465423925

00:57:59.658 --> 00:58:01.410 you see the classic type,

NOTE Confidence: 0.7465423925

00:58:01.410 --> 00:58:03.846 which is a blue cell tumor.

NOTE Confidence: 0.7465423925

00:58:03.850 --> 00:58:07.390 The Sonic Hedgehog group shows this

NOTE Confidence: 0.7465423925

00:58:07.390 --> 00:58:09.750 decimal plastic nodular arrangement.

NOTE Confidence: 0.7465423925

00:58:09.750 --> 00:58:12.876 And also you have a similar

NOTE Confidence: 0.7465423925

00:58:12.876 --> 00:58:15.400 feature called in middle class.

NOTE Confidence: 0.7465423925

00:58:15.400 --> 00:58:17.320 Tomorrow is extensive nodularity

NOTE Confidence: 0.7465423925

00:58:17.320 --> 00:58:19.870 and the the group three and

NOTE Confidence: 0.7465423925

00:58:19.870 --> 00:58:22.090 four are usually large cell,

NOTE Confidence: 0.7465423925

00:58:22.090 --> 00:58:25.800 very anaplastic appearing middle blastomas.

NOTE Confidence: 0.7465423925

00:58:25.800 --> 00:58:27.066 So for the middle class stoma.

NOTE Confidence: 0.7465423925

00:58:27.070 --> 00:58:29.142 Overall it's more complex.

NOTE Confidence: 0.7465423925

00:58:29.142 --> 00:58:31.214 Now it's more split.

NOTE Confidence: 0.79489987

00:58:33.240 --> 00:58:35.874 The tumor types I'm just pointing

NOTE Confidence: 0.79489987

00:58:35.874 --> 00:58:39.069 out a change in red in grading.

NOTE Confidence: 0.79489987

00:58:39.070 --> 00:58:41.740 Uhm, their overall to just

NOTE Confidence: 0.79489987

00:58:41.740 --> 00:58:45.738 summarize the 222 new entities.

NOTE Confidence: 0.79489987

00:58:45.740 --> 00:58:47.180 Within different subtypes,

NOTE Confidence: 0.79489987

00:58:47.180 --> 00:58:50.060 clue Mas que neuronal and ependymal.

NOTE Confidence: 0.79489987

00:58:50.060 --> 00:58:53.780 UM Brian has seen 4 sarcomas,

NOTE Confidence: 0.79489987

00:58:53.780 --> 00:58:58.034 so he added and there are several changes.

NOTE Confidence: 0.79489987

00:58:58.034 --> 00:59:01.580 I will not go through those just to see

NOTE Confidence: 0.79489987

00:59:01.668 --> 00:59:04.706 there is quite a bit of modification.

NOTE Confidence: 0.79489987

00:59:04.710 --> 00:59:07.914 Last feed I just wanted to make close with

NOTE Confidence: 0.79489987

00:59:07.914 --> 00:59:10.460 the case we had and we are out of time.

NOTE Confidence: 0.79489987

00:59:10.460 --> 00:59:12.344 Almost the methylome analysis

NOTE Confidence: 0.79489987

00:59:12.344 --> 00:59:13.757 for brain tumors.

NOTE Confidence: 0.79489987

00:59:13.760 --> 00:59:17.488 In 2018, this paper came out by

NOTE Confidence: 0.79489987

00:59:17.488 --> 00:59:19.869 the German group on David Capper,

NOTE Confidence: 0.79489987

00:59:19.870 --> 00:59:22.780 where Metalation based classification of

NOTE Confidence: 0.79489987

00:59:22.780 --> 00:59:26.920 central nervous system team was really dumb.

NOTE Confidence: 0.79489987

00:59:26.920 --> 00:59:29.560 Breakthrough in certain ways.

NOTE Confidence: 0.79489987

00:59:29.560 --> 00:59:31.785 The cancer methylome is really

NOTE Confidence: 0.79489987

00:59:31.785 --> 00:59:33.565 a combination of SOMATICALLY

NOTE Confidence: 0.79489987

00:59:33.565 --> 00:59:35.650 acquired in a metalation changes.

NOTE Confidence: 0.79489987

00:59:35.650 --> 00:59:37.566 And characteristics that reflect

NOTE Confidence: 0.79489987

00:59:37.566 --> 00:59:40.908 this cell of origin so you can

NOTE Confidence: 0.79489987

00:59:40.908 --> 00:59:43.603 trace the cell back to its origin.

NOTE Confidence: 0.79489987

00:59:43.610 --> 00:59:45.997 It also has been shown that this

NOTE Confidence: 0.79489987

00:59:45.997 --> 00:59:47.857 technology is highly robust and

NOTE Confidence: 0.79489987

00:59:47.857 --> 00:59:50.173 reproducible even when you use very

NOTE Confidence: 0.79489987

00:59:50.173 --> 00:59:52.800 small samples and you have only poor

NOTE Confidence: 0.79489987

00:59:52.800 --> 00:59:54.738 quality material and this profiles

NOTE Confidence: 0.79489987

00:59:54.738 --> 00:59:57.174 have been widely used to classify

NOTE Confidence: 0.79489987

00:59:57.174 --> 01:00:00.014 CNS tumors and this Disney plot here

NOTE Confidence: 0.79489987

01:00:00.014 --> 01:00:02.985 shows that there has been really a

NOTE Confidence: 0.79489987

01:00:02.985 --> 01:00:05.643 discovery of several new tumor entities.

NOTE Confidence: 0.79489987

01:00:05.650 --> 01:00:06.247 Secondly,

NOTE Confidence: 0.79489987

01:00:06.247 --> 01:00:09.829 it's very straightforward to use where

NOTE Confidence: 0.79489987

01:00:09.829 --> 01:00:13.531 you use a paraffin embedded section,

NOTE Confidence: 0.79489987

01:00:13.531 --> 01:00:14.168 microdissected,

NOTE Confidence: 0.79489987

01:00:14.168 --> 01:00:16.079 run the array,

NOTE Confidence: 0.79489987

01:00:16.080 --> 01:00:19.296 and then generate a report which

NOTE Confidence: 0.79489987

01:00:19.296 --> 01:00:22.100 is then based on this.

NOTE Confidence: 0.79489987

01:00:22.100 --> 01:00:26.210 And pattern here and the these

NOTE Confidence: 0.79489987

01:00:26.210 --> 01:00:28.265 new classification recommends

NOTE Confidence: 0.79489987

01:00:28.265 --> 01:00:31.500 DNA metalation studies done

NOTE Confidence: 0.79489987

01:00:31.500 --> 01:00:34.528 explicitly for several tumor types.

NOTE Confidence: 0.79489987

01:00:34.528 --> 01:00:35.460 For example,

NOTE Confidence: 0.79489987

01:00:35.460 --> 01:00:38.620 the pediatric high grade gliomas,

NOTE Confidence: 0.79489987

01:00:38.620 --> 01:00:40.780 the extra ventricular neurosci,

NOTE Confidence: 0.79489987

01:00:40.780 --> 01:00:42.332 Thomas Appending Momus,

NOTE Confidence: 0.79489987

01:00:42.332 --> 01:00:44.356 and also embryonal tumors.

NOTE Confidence: 0.79489987

01:00:44.360 --> 01:00:47.660 It's mandatory now for high grade

NOTE Confidence: 0.79489987

01:00:47.660 --> 01:00:49.502 astrocytomas with highlighted features,

NOTE Confidence: 0.79489987

01:00:49.502 --> 01:00:51.728 it's the only way to really

NOTE Confidence: 0.79489987

01:00:51.728 --> 01:00:52.890 diagnose this tumor.

NOTE Confidence: 0.79489987

01:00:52.890 --> 01:00:55.956 And for the diffuse general tumors with

NOTE Confidence: 0.79489987

01:00:55.956 --> 01:00:58.369 liquid entropy human like features,

NOTE Confidence: 0.79489987

01:00:58.370 --> 01:01:02.624 UM case election should follow cases

NOTE Confidence: 0.79489987

01:01:02.624 --> 01:01:05.460 with ambiguous tumor classification.

NOTE Confidence: 0.79489987

01:01:05.460 --> 01:01:08.250 Which are some I mentioned already.

NOTE Confidence: 0.79489987

01:01:08.250 --> 01:01:09.066 For example,

NOTE Confidence: 0.79489987

01:01:09.066 --> 01:01:11.922 in a young adult with a malignant

NOTE Confidence: 0.79489987

01:01:11.922 --> 01:01:14.947 IDH wild type glioma is suspicious.

NOTE Confidence: 0.79489987

01:01:14.950 --> 01:01:18.842 That should be looked at by methylome

NOTE Confidence: 0.79489987

01:01:18.842 --> 01:01:21.254 analysis diffuse wildtype lumas

NOTE Confidence: 0.79489987

01:01:21.254 --> 01:01:23.693 without necrosis and so forth.

NOTE Confidence: 0.79489987

01:01:23.693 --> 01:01:25.598 And brown tumors in general.

NOTE Confidence: 0.79489987

01:01:25.600 --> 01:01:27.550 Ependymoma as the higher grade

NOTE Confidence: 0.79489987

01:01:27.550 --> 01:01:29.770 many tumors will benefit from it,

NOTE Confidence: 0.79489987

01:01:29.770 --> 01:01:33.166 and patients with putative tumor syndromes.

NOTE Confidence: 0.79489987

01:01:33.170 --> 01:01:35.852 It also it aids in additional

NOTE Confidence: 0.79489987

01:01:35.852 --> 01:01:37.640 testing in complex cases,

NOTE Confidence: 0.79489987

01:01:37.640 --> 01:01:39.320 and there I wanted to briefly show

NOTE Confidence: 0.79489987

01:01:39.320 --> 01:01:41.218 one of the cases we had at Yale.

NOTE Confidence: 0.79489987

01:01:41.220 --> 01:01:42.884 We are metal lumen.

NOTE Confidence: 0.79489987

01:01:42.884 --> 01:01:44.964 Alesis actually resolved this case.

NOTE Confidence: 0.79489987

01:01:44.970 --> 01:01:47.170 So it was a 9 year old female

NOTE Confidence: 0.79489987

01:01:47.170 --> 01:01:49.637 with a very complex heterogeneous

NOTE Confidence: 0.79489987

01:01:49.637 --> 01:01:52.096 tumor with enhancement,

NOTE Confidence: 0.79489987

01:01:52.096 --> 01:01:55.788 cystic degeneration, midline shift.

NOTE Confidence: 0.79489987

01:01:55.790 --> 01:01:58.226 No one was sure was that this

NOTE Confidence: 0.79489987

01:01:58.226 --> 01:02:00.110 is on the benign side of things,

NOTE Confidence: 0.79489987

01:02:00.110 --> 01:02:02.205 or somewhat malignant and so

NOTE Confidence: 0.79489987

01:02:02.205 --> 01:02:04.831 biopsied and or a resection shows

NOTE Confidence: 0.79489987

01:02:04.831 --> 01:02:06.627 a very peculiar picture.

NOTE Confidence: 0.79489987

01:02:06.630 --> 01:02:07.160 Also,

NOTE Confidence: 0.79489987

01:02:07.160 --> 01:02:10.870 where we have fields with embryonal type

NOTE Confidence: 0.79489987

01:02:10.870 --> 01:02:13.760 morphology areas with pseudo rosette forming,

NOTE Confidence: 0.79489987

01:02:13.760 --> 01:02:16.748 this is almost Astro Astro blastoma

NOTE Confidence: 0.79489987

01:02:16.748 --> 01:02:19.818 like fields with sclerosis and there's

NOTE Confidence: 0.79489987

01:02:19.818 --> 01:02:22.288 more pleasure there is nothing.

NOTE Confidence: 0.79489987

01:02:22.290 --> 01:02:25.854 In our current WTO that would

NOTE Confidence: 0.79489987

01:02:25.854 --> 01:02:29.978 fit this features and so the the

NOTE Confidence: 0.79489987

01:02:29.978 --> 01:02:32.330 immunohistochemistry was not helpful

NOTE Confidence: 0.801978871666667

01:02:32.426 --> 01:02:35.760 at all. We ran I enormously wide

NOTE Confidence: 0.801978871666667

01:02:35.760 --> 01:02:38.460 piano or without any conclusion.

NOTE Confidence: 0.801978871666667

01:02:38.460 --> 01:02:44.118 UM, lastly sent it to end to end

NOTE Confidence: 0.801978871666667

01:02:44.118 --> 01:02:47.592 value for DNA metalation studies and

NOTE Confidence: 0.801978871666667

01:02:47.592 --> 01:02:51.709 here it came back to our surprise

NOTE Confidence: 0.801978871666667

01:02:51.710 --> 01:02:55.476 as a tumor which matches a neural

NOTE Confidence: 0.801978871666667

01:02:55.476 --> 01:02:57.880 epithelial tumor with Eminem,

NOTE Confidence: 0.801978871666667

01:02:57.880 --> 01:02:59.440 Eminem, one alteration.

NOTE Confidence: 0.801978871666667

01:02:59.440 --> 01:03:03.810 This was confirmed with a fish he choose.

NOTE Confidence: 0.801978871666667

01:03:03.810 --> 01:03:06.631 Helped us out and here we have

NOTE Confidence: 0.801978871666667

01:03:06.631 --> 01:03:09.332 now a probe that confirmed that

NOTE Confidence: 0.801978871666667

01:03:09.332 --> 01:03:13.190 the emanon arrangement is really,

NOTE Confidence: 0.801978871666667

01:03:13.190 --> 01:03:17.124 truly the driving factor here,

NOTE Confidence: 0.801978871666667

01:03:17.124 --> 01:03:21.220 and so the high grade new rapidly tumors

NOTE Confidence: 0.801978871666667

01:03:21.317 --> 01:03:23.708 M1 is defined as one rearrangement

NOTE Confidence: 0.801978871666667

01:03:23.708 --> 01:03:26.570 is a very new or relatively

NOTE Confidence: 0.801978871666667

01:03:26.661 --> 01:03:29.217 new entity recently described.

NOTE Confidence: 0.801978871666667

01:03:29.220 --> 01:03:31.638 It has several bank binding partners,

NOTE Confidence: 0.801978871666667

01:03:31.640 --> 01:03:33.605 including Band 2.

NOTE Confidence: 0.801978871666667

01:03:33.605 --> 01:03:38.190 Uhm it be metalation profiling shows it

NOTE Confidence: 0.801978871666667

01:03:38.312 --> 01:03:43.303 really splits off as a separate entity

NOTE Confidence: 0.801978871666667

01:03:43.303 --> 01:03:46.940 is distinctly different from others,

NOTE Confidence: 0.801978871666667

01:03:46.940 --> 01:03:49.607 so most of this high grades CNS.

NOTE Confidence: 0.801978871666667

01:03:49.610 --> 01:03:52.098 Peanuts are grouped clusters

NOTE Confidence: 0.801978871666667

01:03:52.098 --> 01:03:54.586 within the reference group.

NOTE Confidence: 0.801978871666667

01:03:54.590 --> 01:03:58.090 Here, 24% form 4 clusters,

NOTE Confidence: 0.801978871666667

01:03:58.090 --> 01:04:01.888 and the I mean one is one of them.

NOTE Confidence: 0.801978871666667

01:04:01.890 --> 01:04:05.028 And so in in general this.

NOTE Confidence: 0.801978871666667

01:04:05.030 --> 01:04:08.789 Worked a sort of false between Astroplus

NOTE Confidence: 0.801978871666667

01:04:08.789 --> 01:04:12.370 stoma, but also somewhat high grade.

NOTE Confidence: 0.801978871666667

01:04:12.370 --> 01:04:13.810 He was unsure morphologically

NOTE Confidence: 0.801978871666667

01:04:13.810 --> 01:04:15.510 what to do with it,

NOTE Confidence: 0.801978871666667

01:04:15.510 --> 01:04:19.968 but this now really helped us.

NOTE Confidence: 0.801978871666667

01:04:19.970 --> 01:04:20.690 You know,

NOTE Confidence: 0.801978871666667

01:04:20.690 --> 01:04:21.770 stratified this tumor,

NOTE Confidence: 0.801978871666667

01:04:21.770 --> 01:04:24.736 and so it was initially reported

NOTE Confidence: 0.801978871666667

01:04:24.736 --> 01:04:26.620 in in a minute you mop.

NOTE Confidence: 0.801978871666667

01:04:26.620 --> 01:04:29.464 In other tumors it has been seen in AML.

NOTE Confidence: 0.801978871666667

01:04:29.470 --> 01:04:32.610 It's actually it's improved survival,

NOTE Confidence: 0.801978871666667

01:04:32.610 --> 01:04:36.506 but I think there's not enough data to

NOTE Confidence: 0.801978871666667

01:04:36.506 --> 01:04:39.146 properly judge this rearrangement here.

NOTE Confidence: 0.801978871666667

01:04:39.146 --> 01:04:43.970 And so where do we go from here?

NOTE Confidence: 0.801978871666667

01:04:43.970 --> 01:04:44.257 Uhm,

NOTE Confidence: 0.801978871666667

01:04:44.257 --> 01:04:46.266 the goal is to build and expand

NOTE Confidence: 0.801978871666667

01:04:46.266 --> 01:04:47.982 on a molecular neuropathology

NOTE Confidence: 0.801978871666667

01:04:47.982 --> 01:04:50.126 service here at Yale.

NOTE Confidence: 0.801978871666667

01:04:50.130 --> 01:04:53.958 Embrace new developments.

NOTE Confidence: 0.801978871666667

01:04:53.960 --> 01:04:57.140 Embrace state of the art technology

NOTE Confidence: 0.801978871666667

01:04:57.140 --> 01:04:59.870 molecular markers and so forth

NOTE Confidence: 0.801978871666667

01:04:59.870 --> 01:05:02.445 to improve on the statistics.

NOTE Confidence: 0.801978871666667

01:05:02.450 --> 01:05:04.522 The image I showed you at the beginning

NOTE Confidence: 0.801978871666667

01:05:04.522 --> 01:05:06.819 of the talk and continue to work very

NOTE Confidence: 0.801978871666667

01:05:06.819 --> 01:05:09.040 closely with all our clinical partners.

NOTE Confidence: 0.801978871666667

01:05:09.040 --> 01:05:10.624 And here we are.

NOTE Confidence: 0.801978871666667

01:05:10.624 --> 01:05:14.108 I'd like to acknowledge and thank a wide

NOTE Confidence: 0.801978871666667

01:05:14.108 --> 01:05:16.658 range of colleagues from neurosurgery.

NOTE Confidence: 0.801978871666667

01:05:16.660 --> 01:05:19.730 Neurooncology my own group is

NOTE Confidence: 0.801978871666667

01:05:19.730 --> 01:05:22.186 fantastic group of neuropathologists

NOTE Confidence: 0.801978871666667

01:05:22.190 --> 01:05:24.322 Neuro radiology medical genetics.

NOTE Confidence: 0.801978871666667

01:05:24.322 --> 01:05:26.987 Molecular genetic pathology also again

NOTE Confidence: 0.801978871666667

01:05:26.987 --> 01:05:29.364 in my department radiation oncology

NOTE Confidence: 0.801978871666667

01:05:29.364 --> 01:05:32.397 and then many who work behind the

NOTE Confidence: 0.801978871666667

01:05:32.397 --> 01:05:35.618 scenes and help us along the way.

NOTE Confidence: 0.801978871666667

01:05:35.620 --> 01:05:36.304 And with that,

NOTE Confidence: 0.801978871666667

01:05:36.304 --> 01:05:36.760 thank you,

NOTE Confidence: 0.801978871666667

01:05:36.760 --> 01:05:38.610 I'm sorry I'll reign over.

NOTE Confidence: 0.8474375225

01:05:40.950 --> 01:05:41.978 Thank you very much.

NOTE Confidence: 0.904115058571428

01:05:44.380 --> 01:05:45.696 Thank you very much. I need to.

NOTE Confidence: 0.904115058571428

01:05:45.700 --> 01:05:48.300 So I think we are running over time.

NOTE Confidence: 0.904115058571428

01:05:48.300 --> 01:05:50.267 So I think questions will need to

NOTE Confidence: 0.904115058571428

01:05:50.267 --> 01:05:51.838 be addressed through email to you.

NOTE Confidence: 0.904115058571428

01:05:51.840 --> 01:05:56.026 So I think this is fantastic and

NOTE Confidence: 0.904115058571428

01:05:56.030 --> 01:05:57.982 I think it is one more example of

NOTE Confidence: 0.904115058571428

01:05:57.982 --> 01:06:00.008 where the oncology field is heading.

NOTE Confidence: 0.904115058571428

01:06:00.010 --> 01:06:01.381 Usually bring tumors,

NOTE Confidence: 0.904115058571428

01:06:01.381 --> 01:06:04.123 lead the way in terms of

NOTE Confidence: 0.904115058571428

01:06:04.123 --> 01:06:05.723 incorporating molecular studies

NOTE Confidence: 0.904115058571428

01:06:05.723 --> 01:06:08.388 and then other diseases follow.

NOTE Confidence: 0.904115058571428

01:06:08.390 --> 01:06:11.421 So it seems like we're getting more

NOTE Confidence: 0.904115058571428

01:06:11.421 --> 01:06:14.387 complex and more sliced and if even.

NOTE Confidence: 0.904115058571428

01:06:14.390 --> 01:06:18.506 Rarer diseases so big challenges ahead,

NOTE Confidence: 0.904115058571428

01:06:18.510 --> 01:06:20.898 so thank everyone for attending and

NOTE Confidence: 0.904115058571428

01:06:20.898 --> 01:06:23.587 once again thank you for our wonderful

NOTE Confidence: 0.904115058571428

01:06:23.587 --> 01:06:26.759 speakers and I hope to see you next week.

NOTE Confidence: 0.904115058571428

01:06:26.760 --> 01:06:28.184 Our next grand rounds.

NOTE Confidence: 0.904115058571428

01:06:28.184 --> 01:06:29.608 Thank you very much.

NOTE Confidence: 0.904115058571428

01:06:29.610 --> 01:06:30.000 Bye bye.