WEBVTT

00:00:00.000 --> 00:00:02.605 Funding for Yale Cancer Answers

NOTE Confidence: 0.9574489

00:00:02.605 --> 00:00:05.210 is provided by Smilow Cancer

NOTE Confidence: 0.9574489

00:00:05.301 --> 00:00:07.557 Hospital and AstraZeneca.

NOTE Confidence: 0.9574489

00:00:07.560 --> 00:00:08.968 Welcome to Yale Cancer Answers,

NOTE Confidence: 0.9574489

00:00:08.968 --> 00:00:10.376 with your host,

NOTE Confidence: 0.9574489

00:00:10.380 --> 00:00:12.432 Doctor Anees Chagpar.

NOTE Confidence: 0.9574489

00:00:12.432 --> 00:00:13.800 Yale Cancer Answers features the latest

NOTE Confidence: 0.9574489

00:00:13.861 --> 00:00:15.921 information on cancer care by

NOTE Confidence: 0.9574489

00:00:15.921 --> 00:00:17.569 welcoming oncologists and specialists

NOTE Confidence: 0.9574489

00:00:17.569 --> 00:00:19.779 who are on the forefront of the

NOTE Confidence: 0.9574489

00:00:19.779 --> 00:00:21.658 battle to fight cancer. This week,

NOTE Confidence: 0.9574489

00:00:21.658 --> 00:00:23.453 it's a conversation about radiotherapy

NOTE Confidence: 0.9574489

00:00:23.453 --> 00:00:25.857 for lung cancer with Doctor Henry Park.

NOTE Confidence: 0.9574489

00:00:25.860 --> 00:00:28.002 Dr. Park is an assistant professor

NOTE Confidence: 0.9574489

00:00:28.002 --> 00:00:29.430 of therapeutic radiology at

NOTE Confidence: 0.9574489

00:00:29.497 --> 00:00:31.137 the Yale School of Medicine,

NOTE Confidence: 0.9574489

00:00:31.140 --> 00:00:33.252 where Doctor Chagpar is a

NOTE Confidence: 0.9574489

00:00:33.252 --> 00:00:34.660 professor of surgical oncology.

NOTE Confidence: 0.9464433

00:00:36.100 --> 00:00:38.308 Henry, maybe we can start off by

NOTE Confidence: 0.9464433

00:00:38.308 --> 00:00:40.332 you telling us a little bit more

NOTE Confidence: 0.9464433

00:00:40.332 --> 00:00:42.260 about yourself and what you do.

NOTE Confidence: 0.9464433

00:00:42.260 --> 00:00:44.770 I'd be happy to, so I grew up in Jersey

NOTE Confidence: 0.9464433

00:00:44.837 --> 00:00:47.205 and first came to Yale as a college

NOTE Confidence: 0.9464433

00:00:47.205 --> 00:00:49.539 student about 18 years ago.

NOTE Confidence: 0.9464433

00:00:49.540 --> 00:00:51.692 I stayed at Yale for medical

NOTE Confidence: 0.9464433

00:00:51.692 --> 00:00:54.019 school and moved to Boston for two years.

NOTE Confidence: 0.9464433

00:00:54.020 --> 00:00:55.686 And then I focused on public

NOTE Confidence: 0.9464433

00:00:55.686 --> 00:00:57.418 health and I received an MPH

NOTE Confidence: 0.9464433

00:00:57.418 --> 00:00:59.338 in public health at Harvard.

NOTE Confidence: 0.9464433

00:00:59.340 --> 00:01:01.090 I then stayed there for

NOTE Confidence: 0.9464433

00:01:01.090 --> 00:01:02.490 my medical internship and

NOTE Confidence: 0.9464433

00:01:02.490 --> 00:01:04.368 returned to Yale about eight years ago

NOTE Confidence: 0.9464433

00:01:05.900 --> 00:01:07.844 and after my radiation oncology residency

NOTE Confidence: 0.9464433

00:01:07.844 --> 00:01:10.240 I joined the faculty about four years ago.

NOTE Confidence: 0.9464433

00:01:10.240 --> 00:01:11.790 So as a radiation oncologist,

NOTE Confidence: 0.9464433

00:01:11.790 --> 00:01:13.425 I specialize in helping patients

NOTE Confidence: 0.9464433

00:01:13.425 --> 00:01:15.412 who have a cancer diagnosis to

NOTE Confidence: 0.9464433

00:01:15.412 --> 00:01:16.882 figure out if radiation therapy

NOTE Confidence: 0.9464433

00:01:16.882 --> 00:01:18.609 is the right choice for them.

NOTE Confidence: 0.9464433

00:01:18.610 --> 00:01:20.240 I focus primarily on treating

NOTE Confidence: 0.9464433

00:01:20.240 --> 00:01:22.216 patients with lung cancer as well

NOTE Confidence: 0.9464433

00:01:22.216 --> 00:01:24.183 as those with head and neck cancer,

NOTE Confidence: 0.9464433

00:01:24.190 --> 00:01:26.350 and I see patients in New Haven and

NOTE Confidence: 0.9464433

00:01:26.350 --> 00:01:28.168 in Waterford and help to manage

NOTE Confidence: 0.9464433

00:01:28.168 --> 00:01:29.688 their care throughout the course

NOTE Confidence: 0.9464433

00:01:29.688 --> 00:01:31.424 of their radiation therapy and

NOTE Confidence: 0.9464433

00:01:31.424 --> 00:01:33.482 really work with the surgeons and

NOTE Confidence: 0.9464433

00:01:33.490 --> 00:01:34.858 the medical oncologists together as a team

00:01:35.890 --> 00:01:38.082 to try to figure out what are the

NOTE Confidence: 0.9464433

00:01:38.082 --> 00:01:39.547 best recommendations that we can

NOTE Confidence: 0.9464433

00:01:39.547 --> 00:01:40.977 give for each individual patient.

NOTE Confidence: 0.97078824

00:01:41.910 --> 00:01:44.889 Henry, let's talk a little bit more

NOTE Confidence: 0.97078824

00:01:44.889 --> 00:01:47.566 about lung cancer and how it's treated.

NOTE Confidence: 0.97078824

00:01:47.570 --> 00:01:50.965 I mean, for many of our listeners

NOTE Confidence: 0.97078824

00:01:50.970 --> 00:01:52.825 there may be questions about

NOTE Confidence: 0.97078824

00:01:52.825 --> 00:01:55.260 how exactly we decide

NOTE Confidence: 0.97078824

00:01:55.260 --> 00:01:57.815 whether a patient should be

NOTE Confidence: 0.97078824

00:01:57.815 --> 00:02:00.329 treated with surgery or with chemotherapy,

NOTE Confidence: 0.97078824

00:02:00.330 --> 00:02:01.809 or with radiotherapy,

NOTE Confidence: 0.97078824

00:02:01.809 --> 00:02:04.767 or with a combination of all

NOTE Confidence: 0.97078824

00:02:04.767 --> 00:02:07.109 three or two of the three.

NOTE Confidence: 0.97078824

00:02:07.110 --> 00:02:09.476 Tell us more about how those decisions are made.

00:02:10.545 --> 00:02:12.320 It's a very complex discussion

NOTE Confidence: 0.988017200000001

00:02:12.320 --> 00:02:14.180 we have often with the patients

NOTE Confidence: 0.988017200000001

00:02:14.180 --> 00:02:16.660 as well as each of us from the

NOTE Confidence: 0.988017200000001

00:02:16.660 --> 00:02:18.640 surgeons and the medical oncologists,

NOTE Confidence: 0.988017200000001

00:02:18.640 --> 00:02:20.620 as well as the radiation oncologists.

NOTE Confidence: 0.988017200000001

00:02:20.620 --> 00:02:23.252 We meet once a week at a lung

NOTE Confidence: 0.988017200000001

00:02:23.252 --> 00:02:25.118 tumor board which is every Monday and

NOTE Confidence: 0.988017200000001

00:02:25.182 --> 00:02:27.354 we get together and discuss any

NOTE Confidence: 0.988017200000001

00:02:27.354 --> 00:02:29.150 situations that might be challenging

NOTE Confidence: 0.988017200000001

00:02:29.150 --> 00:02:31.870 for us to to decide what the right

NOTE Confidence: 0.988017200000001

00:02:31.870 --> 00:02:33.210 combination or treatment is.

NOTE Confidence: 0.988017200000001

00:02:33.210 --> 00:02:35.793 The overarching goal though is to

NOTE Confidence: 0.988017200000001

00:02:35.793 --> 00:02:37.700 be individualized with with how

NOTE Confidence: 0.988017200000001

00:02:37.700 --> 00:02:39.515 we make recommendations and

NOTE Confidence: 0.988017200000001

00:02:39.515 --> 00:02:41.745 to make sure that we're meeting

NOTE Confidence: 0.988017200000001

00:02:41.745 --> 00:02:44.153 the goals of the patient as well.

NOTE Confidence: 0.988017200000001

00:02:44.160 --> 00:02:47.024 So we want to really focus on that.

NOTE Confidence: 0.988017200000001

00:02:47.030 --> 00:02:47.448 Primarily,

NOTE Confidence: 0.988017200000001

00:02:47.448 --> 00:02:49.956 radiation is specifically a non

NOTE Confidence: 0.988017200000001

00:02:49.956 --> 00:02:52.197 invasive and invisible as well as

NOTE Confidence: 0.988017200000001

00:02:52.197 --> 00:02:54.039 very precise way of treating many

NOTE Confidence: 0.988017200000001

00:02:54.039 --> 00:02:56.443 kinds of cancers and for lung

NOTE Confidence: 0.988017200000001

00:02:56.443 --> 00:02:58.520 cancer specifically it is very useful in

NOTE Confidence: 0.988017200000001

00:02:58.520 --> 00:03:00.320 multiple different kinds of contexts.

NOTE Confidence: 0.988017200000001

00:03:00.320 --> 00:03:02.553 And it really depends a lot on

NOTE Confidence: 0.988017200000001

00:03:02.553 --> 00:03:04.800 the stage of disease as well

NOTE Confidence: 0.988017200000001

00:03:04.800 --> 00:03:06.416 as the patients status,

NOTE Confidence: 0.988017200000001

00:03:06.420 --> 00:03:08.412 health status and goals.

NOTE Confidence: 0.988017200000001

00:03:08.412 --> 00:03:09.906 So for example,

NOTE Confidence: 0.988017200000001

00:03:09.910 --> 00:03:12.020 for stage one lung cancer,

NOTE Confidence: 0.988017200000001

00:03:12.020 --> 00:03:14.588 when the disease is very localized,

NOTE Confidence: 0.988017200000001

00:03:16.650 --> 00:03:19.105 we really often choose between

NOTE Confidence: 0.988017200000001

00:03:19.105 --> 00:03:21.560 surgery and radiation therapy for

NOTE Confidence: 0.988017200000001

00:03:21.644 --> 00:03:23.898 a patient to try to figure out

NOTE Confidence: 0.988017200000001

00:03:23.898 --> 00:03:26.330 how best to cure their cancer.

NOTE Confidence: 0.988017200000001

00:03:26.330 --> 00:03:28.150 So we've found overtime that

NOTE Confidence: 0.988017200000001

00:03:28.150 --> 00:03:29.970 this technique called SBRT or

NOTE Confidence: 0.988017200000001

00:03:30.035 --> 00:03:31.867 stereotactic body radiation therapy

NOTE Confidence: 0.988017200000001

00:03:31.867 --> 00:03:34.157 serves as an excellent alternative

NOTE Confidence: 0.988017200000001

00:03:34.157 --> 00:03:36.438 to surgery in certain patients.

NOTE Confidence: 0.988017200000001

00:03:36.440 --> 00:03:40.553 We use a high dose of radiation per session.

NOTE Confidence: 0.988017200000001

00:03:40.560 --> 00:03:42.762 Over just three to five treatments

NOTE Confidence: 0.988017200000001

00:03:42.762 --> 00:03:45.138 using this very precise technique

NOTE Confidence: 0.988017200000001

00:03:45.138 --> 00:03:47.658 in order to target these small

NOTE Confidence: 0.988017200000001

00:03:47.658 --> 00:03:50.109 localized lung tumors and then to

NOTE Confidence: 0.988017200000001

00:03:50.109 --> 00:03:52.034 try to eliminate them completely.

NOTE Confidence: 0.988017200000001

00:03:52.040 --> 00:03:54.416 But for more locally advanced disease,

NOTE Confidence: 0.988017200000001

00:03:54.420 --> 00:03:56.996 we had to make the decision about

NOTE Confidence: 0.988017200000001

00:03:56.996 --> 00:04:00.707 whether or not we need to use

NOTE Confidence: 0.988017200000001

00:04:00.707 --> 00:04:02.740 chemotherapy with radiation together.

NOTE Confidence: 0.988017200000001

00:04:02.740 --> 00:04:05.421 Often we will need lower doses of

NOTE Confidence: 0.988017200000001

00:04:05.421 --> 00:04:08.416 radiation each day and spread out over

NOTE Confidence: 0.988017200000001

00:04:08.416 --> 00:04:10.626 multiple weeks of daily treatment

NOTE Confidence: 0.988017200000001

00:04:10.630 --> 00:04:13.558 in order to to be able to treat

NOTE Confidence: 0.988017200000001

00:04:13.558 --> 00:04:15.250 larger volumes of disease,

NOTE Confidence: 0.988017200000001

00:04:15.250 --> 00:04:16.790 especially when the disease

NOTE Confidence: 0.988017200000001

00:04:16.790 --> 00:04:19.100 has spread to the lymph nodes,

NOTE Confidence: 0.988017200000001

00:04:19.100 --> 00:04:21.795 we still do this with

NOTE Confidence: 0.988017200000001

00:04:21.795 --> 00:04:22.950 a curative intent most of the time

NOTE Confidence: 0.988017200000001

00:04:24.250 --> 00:04:26.200 but sometimes we decide that there's

NOTE Confidence: 0.988017200000001

00:04:26.264 --> 00:04:28.072 some situations where

NOTE Confidence: 0.988017200000001

00:04:28.072 --> 00:04:29.880 chemotherapy first is helpful,

NOTE Confidence: 0.988017200000001

00:04:29.880 --> 00:04:31.035 followed by surgery.

NOTE Confidence: 0.988017200000001

00:04:31.035 --> 00:04:33.730 Other times we do chemo-radiation,

NOTE Confidence: 0.988017200000001

00:04:33.730 --> 00:04:35.270 meaning chemotherapy and radiation

NOTE Confidence: 0.988017200000001

00:04:35.270 --> 00:04:36.040 therapy together, and

NOTE Confidence: 0.988017200000001

00:04:36.040 --> 00:04:36.810 other times,

NOTE Confidence: 0.988017200000001

00:04:36.810 --> 00:04:39.120 chemo and radiation followed by surgery,

NOTE Confidence: 0.988017200000001

00:04:39.120 --> 00:04:40.868 so there really are

NOTE Confidence: 0.988017200000001

00:04:40.868 --> 00:04:42.616 multiple options that depending

NOTE Confidence: 0.988017200000001

00:04:42.616 --> 00:04:45.190 on exactly where the tumor is and

NOTE Confidence: 0.988017200000001

00:04:45.190 --> 00:04:47.583 how it's spread and what we think

NOTE Confidence: 0.988017200000001

00:04:47.583 --> 00:04:49.659 each patient can tolerate in terms

NOTE Confidence: 0.988017200000001

00:04:49.659 --> 00:04:50.736 of the treatment,

NOTE Confidence: 0.988017200000001

00:04:50.736 --> 00:04:53.368 we often have to make

NOTE Confidence: 0.988017200000001

00:04:53.368 --> 00:04:54.877 those recommendations and discuss

NOTE Confidence: 0.988017200000001

00:04:54.877 --> 00:04:56.269 those options with each patient.

00:04:58.766 --> 00:05:01.436 Getting back to where you started with early

NOTE Confidence: 0.98013157

00:05:01.436 --> 00:05:03.736 stage lung cancer, stage one,

NOTE Confidence: 0.98013157

00:05:03.740 --> 00:05:06.666 when you said well,

NOTE Confidence: 0.98013157

00:05:06.670 --> 00:05:09.028 we need to make the decision

NOTE Confidence: 0.98013157

00:05:09.028 --> 00:05:11.280 about using SBRT versus surgery,

NOTE Confidence: 0.98013157

00:05:11.280 --> 00:05:14.150 it sounds to me

NOTE Confidence: 0.98013157

00:05:14.150 --> 00:05:16.726 like many patients may opt for

NOTE Confidence: 0.98013157

00:05:16.726 --> 00:05:19.240 SBRT if these two are equivalent.

NOTE Confidence: 0.98013157

00:05:19.240 --> 00:05:21.330 Here you have radiation therapy

NOTE Confidence: 0.98013157

00:05:21.330 --> 00:05:23.430 which is non invasive, painless.

NOTE Confidence: 0.98013157

00:05:23.430 --> 00:05:25.946 Three to five days I believe

NOTE Confidence: 0.98013157

00:05:25.946 --> 00:05:27.618 you said versus surgery,

NOTE Confidence: 0.98013157

00:05:27.620 --> 00:05:29.448 which is clearly invasive.

NOTE Confidence: 0.98013157

00:05:29.448 --> 00:05:32.190 Often will result in a hospital

NOTE Confidence: 0.98013157

00:05:32.274 --> 00:05:34.009 stay and so are these

NOTE Confidence: 0.98013157

00:05:34.010 --> 00:05:35.922 really equivalent or is one superior?

00:05:42.120 --> 00:05:44.388 It's hard to say for sure.

NOTE Confidence: 0.968989

00:05:44.390 --> 00:05:46.358 We have not yet been successful as a specialty,

00:05:48.560 --> 00:05:50.685 either surgery or radiation oncology,

NOTE Confidence: 0.968989

00:05:50.685 --> 00:05:52.810 at comparing head-to-head in a

NOTE Confidence: 0.968989

00:05:52.879 --> 00:05:55.009 randomized trial to be sure of

NOTE Confidence: 0.968989

00:05:55.009 --> 00:05:56.843 that answer about exactly which

NOTE Confidence: 0.968989

00:05:56.843 --> 00:05:58.558 patients are best for surgery

NOTE Confidence: 0.968989

00:05:58.558 --> 00:06:00.596 and which are best for radiation.

NOTE Confidence: 0.968989

00:06:00.596 --> 00:06:03.260 We do know that when you compare them

NOTE Confidence: 0.968989

00:06:03.332 --> 00:06:05.720 in terms of patients who receive

NOTE Confidence: 0.968989

00:06:05.720 --> 00:06:07.890 surgery and receive radiation therapy,

NOTE Confidence: 0.968989

00:06:07.890 --> 00:06:10.296 that those who have received

NOTE Confidence: 0.968989

00:06:10.296 --> 00:06:11.098 surgery often have

NOTE Confidence: 0.968989

00:06:11.100 --> 00:06:12.925 better outcomes than those

NOTE Confidence: 0.968989

00:06:12.925 --> 00:06:14.385 who had radiation therapy,

NOTE Confidence: 0.968989

00:06:14.390 --> 00:06:16.525 but we don't know if that's because

NOTE Confidence: 0.968989

00:06:16.525 --> 00:06:18.622 of the fact that patients who

NOTE Confidence: 0.968989

00:06:18.622 --> 00:06:20.472 get radiation therapy may not

NOTE Confidence: 0.968989

00:06:20.472 --> 00:06:22.778 always be candidates for surgery,

NOTE Confidence: 0.968989

00:06:22.780 --> 00:06:25.335 or may not be the best suited

NOTE Confidence: 0.968989

00:06:25.335 --> 00:06:26.430 for surgery either.

NOTE Confidence: 0.968989

00:06:26.430 --> 00:06:28.620 So that's why we don't

NOTE Confidence: 0.968989

00:06:28.620 --> 00:06:31.175 know for sure about that.

NOTE Confidence: 0.968989

00:06:31.180 --> 00:06:33.370 Typically, if patients can get surgery,

NOTE Confidence: 0.968989

00:06:33.370 --> 00:06:36.290 and if the surgeons believe that they can

NOTE Confidence: 0.968989

00:06:36.290 --> 00:06:38.882 take the tumor out

NOTE Confidence: 0.968989

00:06:38.882 --> 00:06:41.110 without causing too much of a

NOTE Confidence: 0.968989

00:06:41.110 --> 00:06:42.020 functional deficit,

NOTE Confidence: 0.968989

00:06:42.020 --> 00:06:44.750 meaning that your lung

NOTE Confidence: 0.968989

00:06:44.750 --> 00:06:47.104 function can handle our surgery and

NOTE Confidence: 0.968989

00:06:47.104 --> 00:06:49.928 that you as a patient can handle the

NOTE Confidence: 0.968989

00:06:49.928 --> 00:06:52.022 surgery and recover well from it

NOTE Confidence: 0.968989

00:06:52.022 --> 00:06:54.660 if it is expected that can happen,

NOTE Confidence: 0.968989

00:06:54.660 --> 00:06:57.355 then our gold standard still is surgery.

NOTE Confidence: 0.968989

00:06:57.360 --> 00:06:58.908 At this point, however,

NOTE Confidence: 0.968989

00:06:58.908 --> 00:07:00.456 we believe that radiation,

NOTE Confidence: 0.968989

00:07:00.460 --> 00:07:02.902 especially for those who are not

NOTE Confidence: 0.968989

00:07:02.902 --> 00:07:04.979 good surgical candidates, meaning

NOTE Confidence: 0.968989

00:07:04.979 --> 00:07:07.217 that surgery would likely lead to

NOTE Confidence: 0.968989

00:07:07.217 --> 00:07:09.607 a major issue with their quality

NOTE Confidence: 0.968989

00:07:09.607 --> 00:07:11.199 of life going forward

NOTE Confidence: 0.968989

00:07:11.200 --> 00:07:13.570 and that recovery may be too

NOTE Confidence: 0.968989

00:07:13.570 --> 00:07:15.150 much for a patient,

NOTE Confidence: 0.968989

00:07:15.150 --> 00:07:17.130 then we believe that radiation,

NOTE Confidence: 0.968989

00:07:17.130 --> 00:07:18.706 especially this SBRT technique,

NOTE Confidence: 0.968989

00:07:18.706 --> 00:07:20.676 does achieve very good outcomes.

NOTE Confidence: 0.968989

00:07:20.680 --> 00:07:23.074 We're still working on trying to

NOTE Confidence: 0.968989

00:07:23.074 --> 00:07:25.923 complete a clinical trial to try to

NOTE Confidence: 0.968989

00:07:25.923 --> 00:07:27.883 compare surgery and radiation therapy

NOTE Confidence: 0.968989

00:07:27.883 --> 00:07:30.946 for those who are eligible for either one,

NOTE Confidence: 0.968989

00:07:30.950 --> 00:07:33.558 but it is has been hard to get enough patients

00:07:35.596 --> 00:07:38.206 on this clinical trial to answer

NOTE Confidence: 0.968989

00:07:38.206 --> 00:07:40.428 the question fully so far.

00:07:40.830 --> 00:07:42.890 The clinical trial is

NOTE Confidence: 0.94310396

00:07:42.890 --> 00:07:44.950 currently open and enrolling at the VA.

00:07:49.380 --> 00:07:51.552 There have been other clinical trials

00:07:54.043 --> 00:07:56.796 that did not have enough

NOTE Confidence: 0.9390244

00:07:56.796 --> 00:07:59.340 patients to answer the question fully,

NOTE Confidence: 0.9390244

00:07:59.340 --> 00:08:01.476 but when they combine the results

NOTE Confidence: 0.9390244

00:08:01.476 --> 00:08:03.651 of those studies they found among

NOTE Confidence: 0.9390244

00:08:03.651 --> 00:08:05.709 the patients that did

NOTE Confidence: 0.9390244

00:08:05.709 --> 00:08:08.431 receive SBRT who were

NOTE Confidence: 0.9390244

00:08:08.431 --> 00:08:10.401 also eligible for surgery otherwise

NOTE Confidence: 0.9390244

00:08:10.410 --> 00:08:12.906 but did receive SBRT,

NOTE Confidence: 0.9390244

00:08:12.910 --> 00:08:15.088 did have very good outcomes and

NOTE Confidence: 0.9390244

00:08:15.088 --> 00:08:18.222 seemed to be just as good as surgery

NOTE Confidence: 0.9390244

00:08:18.222 --> 00:08:20.622 in those small number of patients,

NOTE Confidence: 0.9390244

00:08:20.630 --> 00:08:23.334 but we don't have enough patients yet on

NOTE Confidence: 0.9390244

00:08:23.334 --> 00:08:26.092 one of these randomized trials to know

NOTE Confidence: 0.9390244

00:08:26.092 --> 00:08:29.388 for sure if radiation is truly

NOTE Confidence: 0.9390244

00:08:29.388 --> 00:08:32.202 a fully adequate alternative to surgery,

NOTE Confidence: 0.9390244

00:08:32.210 --> 00:08:35.258 for those who can get surgery.

00:08:38.390 --> 00:08:41.153 I know on this show I'm often standing on

NOTE Confidence: 0.9834192

00:08:41.153 --> 00:08:44.249 a soapbox talking about clinical trials.

NOTE Confidence: 0.9834192

00:08:44.250 --> 00:08:46.987 But if these two modalities truly are

NOTE Confidence: 0.9834192

00:08:46.987 --> 00:08:49.234 equivalent, the only way that

NOTE Confidence: 0.9834192

00:08:49.234 --> 00:08:51.917 we're going to in practice offer SBRT to

NOTE Confidence: 0.9834192

00:08:51.917 --> 00:08:55.063 all patients is if we have the clinical

NOTE Confidence: 0.9834192

00:08:55.063 --> 00:08:58.093 trial data that compares head-to-head and

NOTE Confidence: 0.9834192

00:08:58.093 --> 00:08:59.894 demonstrates that they're equivalent.

00:09:02.243 --> 00:09:05.444 And the signal so far is that based on

NOTE Confidence: 0.9834192

00:09:05.444 --> 00:09:07.579 combining results of trials that

NOTE Confidence: 0.9834192

00:09:07.579 --> 00:09:10.000 didn't meet their accrual target,

NOTE Confidence: 0.9834192

00:09:10.000 --> 00:09:12.968 it looks like these two are equivalent.

NOTE Confidence: 0.9834192

00:09:12.970 --> 00:09:15.973 But it would really be a tremendous

NOTE Confidence: 0.9834192

00:09:15.973 --> 00:09:18.632 advance to avoid surgery in patients

NOTE Confidence: 0.9834192

00:09:18.632 --> 00:09:22.514 we could offering them SBRT.

NOTE Confidence: 0.9834192

00:09:22.514 --> 00:09:25.293 Am I correct in assuming that SBRT has fewer

NOTE Confidence: 0.9834192

00:09:25.293 --> 00:09:28.658 side effects than surgery long term?

NOTE Confidence: 0.9834192

00:09:28.660 --> 00:09:31.159 Are there side effects to the SBRT

NOTE Confidence: 0.9834192

00:09:31.159 --> 00:09:33.819 as well that cause patients

NOTE Confidence: 0.9834192

00:09:33.819 --> 00:09:36.334 difficulties in breathing

NOTE Confidence: 0.9834192

00:09:36.340 --> 00:09:38.741 or reduced lung capacity and so on

NOTE Confidence: 0.9834192

00:09:38.741 --> 00:09:41.238 and so forth that they should be

NOTE Confidence: 0.93686986

00:09:41.240 --> 00:09:41.940 concerned about?

NOTE Confidence: 0.93686986

00:09:41.940 --> 00:09:44.740 There are in the short term,

NOTE Confidence: 0.93686986

00:09:44.740 --> 00:09:46.840 we believe that SBRT has

NOTE Confidence: 0.93686986

00:09:46.840 --> 00:09:48.240 fewer side effects,

NOTE Confidence: 0.93686986

00:09:48.240 --> 00:09:50.473 so often for patients who may be

NOTE Confidence: 0.93686986

00:09:50.473 --> 00:09:52.507 older or have more other medical

NOTE Confidence: 0.93686986

00:09:52.507 --> 00:09:55.297 issues or who may not be able to

NOTE Confidence: 0.93686986

00:09:55.297 --> 00:09:57.207 withstand the recovery very well

NOTE Confidence: 0.93686986

00:09:57.207 --> 00:09:59.500 from surgery in the short term,

NOTE Confidence: 0.93686986

00:10:02.160 --> 00:10:04.638 we feel confident that SBRT has fewer

NOTE Confidence: 0.93686986

00:10:04.638 --> 00:10:06.870 side effects in that short term.

NOTE Confidence: 0.93686986

00:10:06.870 --> 00:10:08.580 However, as time goes by,

NOTE Confidence: 0.93686986

00:10:08.580 --> 00:10:10.890 I think the other issue here is

NOTE Confidence: 0.93686986

00:10:10.890 --> 00:10:13.332 long term follow up and long term

NOTE Confidence: 0.93686986

00:10:13.332 --> 00:10:15.396 survival as well as side effects.

NOTE Confidence: 0.93686986

00:10:15.400 --> 00:10:17.906 The side effects do accumulate

NOTE Confidence: 0.93686986

00:10:17.906 --> 00:10:20.245 overtime and the more we learn about

NOTE Confidence: 0.93686986

00:10:20.245 --> 00:10:22.462 SBRT which has been in widespread

NOTE Confidence: 0.93686986

00:10:22.462 --> 00:10:25.621 practice for only about 15 years or so,

NOTE Confidence: 0.93686986

00:10:25.630 --> 00:10:28.350 not as long as surgery has been around,

NOTE Confidence: 0.93686986

00:10:28.350 --> 00:10:30.597 so we don't have as much long

NOTE Confidence: 0.93686986

00:10:30.597 --> 00:10:32.788 term data as a surgery does.

NOTE Confidence: 0.93686986

00:10:32.790 --> 00:10:34.950 But we know in that three

NOTE Confidence: 0.93686986

00:10:34.950 --> 00:10:36.880 to five year period that

NOTE Confidence: 0.93686986

00:10:36.880 --> 00:10:39.768 as you go further along in that period,

NOTE Confidence: 0.93686986

00:10:39.770 --> 00:10:42.482 close follow up is really required because we

NOTE Confidence: 0.93686986

00:10:42.482 --> 00:10:45.536 need to see how the side effects accumulate.

00:10:46.318 --> 00:10:48.263 And sometimes they don't present

NOTE Confidence: 0.93686986

00:10:48.263 --> 00:10:50.426 themselves for a couple of years

NOTE Confidence: 0.93686986

00:10:50.426 --> 00:10:51.678 or a few years afterwards.

NOTE Confidence: 0.93686986

00:10:51.680 --> 00:10:54.929 So we do want to watch closely for that,

NOTE Confidence: 0.93686986

00:10:54.930 --> 00:10:57.096 because there can be side effects,

NOTE Confidence: 0.93686986

00:10:57.100 --> 00:10:58.540 especially with lung function.

NOTE Confidence: 0.93686986

00:10:58.540 --> 00:10:58.900 Overall in the lung function,

NOTE Confidence: 0.93686986

00:11:00.710 --> 00:11:02.462 as inflammation occurs and

NOTE Confidence: 0.93686986

00:11:02.462 --> 00:11:04.652 eventually scarring as part of

NOTE Confidence: 0.93686986

00:11:04.652 --> 00:11:06.889 the healing process is that

NOTE Confidence: 0.93686986

00:11:06.890 --> 00:11:07.234 ultimately,

NOTE Confidence: 0.93686986

00:11:07.234 --> 00:11:09.298 we may see that the pulmonary

NOTE Confidence: 0.93686986

00:11:09.298 --> 00:11:11.201 function may decline more gradually

NOTE Confidence: 0.93686986

00:11:11.201 --> 00:11:12.829 overtime compared to surgery,

NOTE Confidence: 0.93686986

00:11:12.830 --> 00:11:14.900 where the decline tends to be

NOTE Confidence: 0.93686986

00:11:14.900 --> 00:11:17.279 a little on the sooner side,

NOTE Confidence: 0.93686986

00:11:17.280 --> 00:11:21.568 so that's why it's really nuanced and subtle.

00:11:21.883 --> 00:11:23.448 So there are some

NOTE Confidence: 0.93686986

00:11:23.448 --> 00:11:24.074 differences there,

NOTE Confidence: 0.93686986

00:11:24.080 --> 00:11:25.964 but both of them have their

NOTE Confidence: 0.93686986

00:11:25.964 --> 00:11:27.220 risks and side effects,

NOTE Confidence: 0.93686986

00:11:27.220 --> 00:11:28.912 and that's why we encourage our

NOTE Confidence: 0.93686986

00:11:28.912 --> 00:11:30.742 patients to meet both the surgeons

NOTE Confidence: 0.93686986

00:11:30.742 --> 00:11:32.362 and the radiation oncologists who

NOTE Confidence: 0.93686986

00:11:32.362 --> 00:11:34.366 have stage one disease to really

NOTE Confidence: 0.93686986

00:11:34.366 --> 00:11:35.986 determine what exactly is expected

NOTE Confidence: 0.93686986

00:11:35.986 --> 00:11:37.268 for each individual patient.

NOTE Confidence: 0.93686986

00:11:37.268 --> 00:11:39.780 The other thing about radiation, just as it is
NOTE Confidence: 0.93686986

00:11:39.780 --> 00:11:42.192 for surgery, is it depends

NOTE Confidence: 0.93686986

00:11:42.192 --> 00:11:44.161 on where exactly within the lung

NOTE Confidence: 0.93686986

00:11:44.161 --> 00:11:46.690 the tumor is arising from.

NOTE Confidence: 0.93686986

00:11:46.690 --> 00:11:49.098 So if it's right in the middle

NOTE Confidence: 0.93686986

00:11:49.098 --> 00:11:51.770 of the lung, far away from other

NOTE Confidence: 0.93686986

00:11:51.770 --> 00:11:52.805 organs, then

NOTE Confidence: 0.93686986

00:11:52.805 --> 00:11:55.822 the side effects may be less, however, if

NOTE Confidence: 0.93686986

00:11:55.822 --> 00:11:58.020 the tumor is closer to the

NOTE Confidence: 0.93686986

00:11:58.094 --> 00:12:00.049 esophagus or the airways,

NOTE Confidence: 0.93686986

00:12:00.050 --> 00:12:01.294 or to the ribs,

NOTE Confidence: 0.93686986

00:12:01.294 --> 00:12:03.160 you might see other side effects

NOTE Confidence: 0.93686986

00:12:03.232 --> 00:12:05.566 that are beyond the lung themselves.

NOTE Confidence: 0.93686986

00:12:05.570 --> 00:12:06.521 So for example,

NOTE Confidence: 0.93686986

00:12:06.521 --> 00:12:08.423 if we get treatment very close

NOTE Confidence: 0.93686986

00:12:08.423 --> 00:12:09.710 to the esophagus,

NOTE Confidence: 0.93686986

00:12:09.710 --> 00:12:11.719 we might expect that we'll see some

NOTE Confidence: 0.93686986

00:12:11.719 --> 00:12:13.090 more difficulty with swallowing

NOTE Confidence: 0.93686986

00:12:13.090 --> 00:12:14.890 or painful swallowing, heartburn,

NOTE Confidence: 0.93686986

00:12:14.890 --> 00:12:15.862 things like that,

NOTE Confidence: 0.93686986

00:12:15.862 --> 00:12:19.030 and then if it's too close to the airways,

NOTE Confidence: 0.93686986

00:12:19.030 --> 00:12:21.208 we might see some bleeding, more cough.

00:12:23.240 --> 00:12:25.438 If it's too close to the ribs

NOTE Confidence: 0.93686986

00:12:25.438 --> 00:12:27.730 or the chest wall or the back,

NOTE Confidence: 0.93686986

00:12:27.730 --> 00:12:29.760 sometimes we'll see some pain that can

NOTE Confidence: 0.93686986

00:12:29.760 --> 00:12:32.228 arise even a couple of years afterwards,

NOTE Confidence: 0.93686986

00:12:32.230 --> 00:12:34.477 so it's not a benign treatment completely,

NOTE Confidence: 0.93686986

00:12:34.480 --> 00:12:36.000 but the side effects generally

NOTE Confidence: 0.93686986

00:12:36.000 --> 00:12:37.520 are well tolerated for

NOTE Confidence: 0.98454064

00:12:37.581 --> 00:12:38.329 most patients.

NOTE Confidence: 0.9750336

00:12:39.630 --> 00:12:42.185 And what about long term side effects?

NOTE Confidence: 0.9750336

00:12:42.190 --> 00:12:45.446 I realized that you said that SBRT is

NOTE Confidence: 0.9750336

00:12:45.446 --> 00:12:48.409 relatively new in the past 15 years or so,

NOTE Confidence: 0.9750336

00:12:48.410 --> 00:12:50.240 but with other

NOTE Confidence: 0.9750336

00:12:50.240 --> 00:12:51.704 cancers treated with radiation,

NOTE Confidence: 0.9750336

00:12:51.710 --> 00:12:53.650 people are often told about

NOTE Confidence: 0.9750336

00:12:53.650 --> 00:12:55.202 the possibility of secondary

NOTE Confidence: 0.9750336

00:12:55.202 --> 00:12:56.828 malignancies and worry about that,

NOTE Confidence: 0.9750336

00:12:56.830 --> 00:12:57.928 especially with scarring

NOTE Confidence: 0.9750336

00:12:57.928 --> 00:13:00.124 that takes place and so on.

NOTE Confidence: 0.9750336

00:13:00.130 --> 00:13:01.990 Is that something that patients

NOTE Confidence: 0.9750336

00:13:01.990 --> 00:13:04.265 should be worried about in lung

NOTE Confidence: 0.9750336

00:13:04.265 --> 00:13:05.975 cancer treated with SBRT as well?

NOTE Confidence: 0.9750336

00:13:09.390 --> 00:13:11.025 It is something we counsel our patients

NOTE Confidence: 0.9750336

00:13:11.025 --> 00:13:13.601 about and we don't know for sure if

NOTE Confidence: 0.9750336

00:13:13.601 --> 00:13:15.645 radiation really leads to, in the lung

NOTE Confidence: 0.9750336

00:13:15.650 --> 00:13:17.939 at least, if it really leads to

NOTE Confidence: 0.9750336

00:13:17.939 --> 00:13:19.260 significantly increased risk of

NOTE Confidence: 0.9750336

00:13:19.260 --> 00:13:20.970 other lung cancers down the road.

NOTE Confidence: 0.9750336

00:13:20.970 --> 00:13:22.944 Because often when patients get one

NOTE Confidence: 0.9750336

00:13:22.944 --> 00:13:24.895 lung cancer, it doesn't matter

NOTE Confidence: 0.9750336

00:13:24.895 --> 00:13:26.918 what kind of treatment they get,

NOTE Confidence: 0.9750336

00:13:26.920 --> 00:13:29.384 they are often more prone to other lung

NOTE Confidence: 0.9750336

00:13:29.384 --> 00:13:31.606 cancers that we watch very closely for.

NOTE Confidence: 0.9750336

00:13:31.610 --> 00:13:33.416 So if something comes back in an

NOTE Confidence: 0.9750336

00:13:33.416 --> 00:13:35.370 area that was previously radiated,

NOTE Confidence: 0.9750336

00:13:35.370 --> 00:13:37.546 we may not know if that was because

NOTE Confidence: 0.9750336

00:13:37.546 --> 00:13:39.785 of the radiation, or because it

NOTE Confidence: 0.9750336

00:13:39.785 --> 00:13:41.085 would have happened anyway,

NOTE Confidence: 0.9750336

00:13:41.090 --> 00:13:43.004 but we do see that sometimes

NOTE Confidence: 0.9750336

00:13:43.004 --> 00:13:44.869 where lung tumors do come up,

NOTE Confidence: 0.9750336

00:13:44.870 --> 00:13:47.718 both in the areas where there was a

NOTE Confidence: 0.9750336

00:13:47.718 --> 00:13:49.556 previous radiation as well as other

NOTE Confidence: 0.9750336

00:13:49.556 --> 00:13:51.800 areas of the lung or in the body,

NOTE Confidence: 0.9750336

00:13:51.800 --> 00:13:53.380 that really had nothing

NOTE Confidence: 0.9750336

00:13:53.380 --> 00:13:55.252 to do with the radiation

NOTE Confidence: 0.9750336

00:13:55.252 --> 00:13:57.159 so it is hard to know for sure.

NOTE Confidence: 0.9750336

00:13:57.160 --> 00:13:58.790 But it's something that we

NOTE Confidence: 0.9750336

00:13:58.790 --> 00:14:00.420 counsel our patients about,

NOTE Confidence: 0.9750336

00:14:00.474 --> 00:14:01.994 that theoretical risk that

NOTE Confidence: 0.9750336

00:14:01.994 --> 00:14:04.175 radiation can lead to a second

NOTE Confidence: 0.9750336

00:14:04.175 --> 00:14:05.975 malignancy many years down the road,

NOTE Confidence: 0.9750336

00:14:05.980 --> 00:14:08.017 but it seems to be less of

NOTE Confidence: 0.9750336

00:14:08.017 --> 00:14:09.840 a problem for lung cancer

NOTE Confidence: 0.9750336

00:14:09.840 --> 00:14:11.485 then it is for other kinds of

NOTE Confidence: 0.9750336

00:14:11.485 --> 00:14:12.590 cancers like breast cancer.

00:14:15.238 --> 00:14:17.655 We're going to take a short

NOTE Confidence: 0.9505983

00:14:17.655 --> 00:14:19.929 break for a medical minute and

NOTE Confidence: 0.9505983

00:14:19.929 --> 00:14:22.479 then come back and talk more

NOTE Confidence: 0.9505983

00:14:22.479 --> 00:14:24.709 about radiotherapy for lung cancer

NOTE Confidence: 0.9505983

00:14:24.710 --> 00:14:26.170 with my guest doctor Henry Park.

NOTE Confidence: 0.9505983

00:14:26.170 --> 00:14:28.360 Funding for Yale Cancer Answers

NOTE Confidence: 0.9505983

00:14:28.429 --> 00:14:30.579 comes from Smilow Cancer Hospital,

NOTE Confidence: 0.9505983

00:14:30.579 --> 00:14:32.729 promoting sun safety and

NOTE Confidence: 0.9505983

00:14:32.802 --> 00:14:34.872 skin cancer screening in honor of

NOTE Confidence: 0.9505983

00:14:34.872 --> 00:14:37.030 UV Safety Month. For information and

NOTE Confidence: 0.9505983

00:14:37.030 --> 00:14:39.725 to learn if you should be screened,

NOTE Confidence: 0.9505983

00:14:39.730 --> 00:14:40.500 visit yalecancercenter.org/screening.

NOTE Confidence: 0.9874657

00:14:42.600 --> 00:14:44.296 The American Cancer Society

NOTE Confidence: 0.9874657

00:14:44.296 --> 00:14:46.416 estimates that nearly 150,000 people

NOTE Confidence: 0.9874657

00:14:46.416 --> 00:14:49.073 in the US will be diagnosed with

NOTE Confidence: 0.9874657

00:14:49.073 --> 00:14:50.960 colorectal cancer this year alone.

NOTE Confidence: 0.9874657

00:14:50.960 --> 00:14:52.885 When detected early colorectal cancer

NOTE Confidence: 0.9874657

00:14:52.885 --> 00:14:55.340 is easily treated and highly curable,

NOTE Confidence: 0.9874657

00:14:55.340 --> 00:14:58.193 and men and women over the age of 45

NOTE Confidence: 0.9874657

00:14:58.193 --> 00:15:00.055 should have regular colonoscopies

NOTE Confidence: 0.9874657

00:15:00.055 --> 00:15:02.500 to screen for the disease.

NOTE Confidence: 0.9874657

00:15:02.500 --> 00:15:04.092 Patients with colorectal cancer

NOTE Confidence: 0.9874657

00:15:04.092 --> 00:15:06.480 have more hope than ever before,

NOTE Confidence: 0.9874657

00:15:06.480 --> 00:15:08.868 thanks to increased access to advanced

NOTE Confidence: 0.9874657

00:15:08.868 --> 00:15:10.460 therapies and specialized care.

NOTE Confidence: 0.9874657

00:15:10.460 --> 00:15:12.092 Clinical trials are currently

NOTE Confidence: 0.9874657

00:15:12.092 --> 00:15:13.316 underway at federally

NOTE Confidence: 0.9874657

00:15:13.320 --> 00:15:14.742 Designated comprehensive cancer

NOTE Confidence: 0.9874657

00:15:14.742 --> 00:15:17.586 centers such as Yale Cancer Center

NOTE Confidence: 0.9874657

00:15:17.586 --> 00:15:20.261 and at Smilow Cancer Hospital to

NOTE Confidence: 0.9874657

00:15:20.261 --> 00:15:22.391 test innovative new treatments for

NOTE Confidence: 0.9874657

00:15:22.467 --> 00:15:24.837 colorectal cancer tumor gene analysis

NOTE Confidence: 0.9874657

00:15:24.837 --> 00:15:27.207 has helped improve management of

NOTE Confidence: 0.9874657

00:15:27.210 --> 00:15:29.435 colorectal cancer by identifying the

NOTE Confidence: 0.9874657

00:15:29.435 --> 00:15:32.215 patients most likely to benefit from

NOTE Confidence: 0.9874657

00:15:32.215 --> 00:15:34.615 chemotherapy and newer targeted agents,

NOTE Confidence: 0.9874657

00:15:34.620 --> 00:15:37.398 resulting in more patient specific treatment.

NOTE Confidence: 0.9874657

00:15:37.400 --> 00:15:39.780 More information is available at

NOTE Confidence: 0.9874657

00:15:39.780 --> 00:15:41.208 yalecancercenter.org. You're listening

NOTE Confidence: 0.9874657

00:15:41.208 --> 00:15:42.949 to Connecticut Public Radio.

NOTE Confidence: 0.95672905

00:15:43.680 --> 00:15:45.978 Welcome back to Yale Cancer Answers.

NOTE Confidence: 0.95672905

00:15:45.980 --> 00:15:48.116 This is doctor Anees Chagpar

NOTE Confidence: 0.95672905

00:15:48.116 --> 00:15:50.462 and I'm joined tonight by

NOTE Confidence: 0.95672905

00:15:50.462 --> 00:15:52.528 my guest Doctor Henry Park.

NOTE Confidence: 0.95672905

00:15:52.528 --> 00:15:54.548 We're talking about radiotherapy for

NOTE Confidence: 0.95672905

00:15:54.548 --> 00:15:56.808 lung cancer and right before the

NOTE Confidence: 0.95672905

00:15:56.808 --> 00:15:59.104 break we were talking about the use

NOTE Confidence: 0.95672905

00:15:59.170 --> 00:16:01.190 of radiation therapy and specifically

NOTE Confidence: 0.95672905

00:16:01.190 --> 00:16:03.592 SBRT for the management of stage

NOTE Confidence: 0.95672905

00:16:03.592 --> 00:16:05.884 one or early stage lung cancer.

NOTE Confidence: 0.95672905

00:16:05.890 --> 00:16:08.128 So Henry, you were mentioning that

NOTE Confidence: 0.95672905

00:16:08.128 --> 00:16:11.235 radiation also may play a role in more

NOTE Confidence: 0.95672905

00:16:11.235 --> 00:16:13.165 advanced cancers that are locally advanced

NOTE Confidence: 0.95672905

00:16:13.170 --> 00:16:14.954 and not metastatic.

NOTE Confidence: 0.95672905

00:16:14.954 --> 00:16:17.184 But one of the questions

NOTE Confidence: 0.95672905

00:16:17.184 --> 00:16:19.268 that often comes up is,

NOTE Confidence: 0.95672905

00:16:19.270 --> 00:16:21.080 sometimes we use

NOTE Confidence: 0.95672905

00:16:21.080 --> 00:16:22.528 chemotherapy alone and sometimes

NOTE Confidence: 0.95672905

00:16:22.528 --> 00:16:24.482 we use chemotherapy plus radiation

NOTE Confidence: 0.95672905

00:16:24.482 --> 00:16:26.392 combined at the same time.

NOTE Confidence: 0.95672905

00:16:26.400 --> 00:16:28.650 How do we make those decisions?

NOTE Confidence: 0.96354556

00:16:29.680 --> 00:16:31.630 So that's a very good question.

NOTE Confidence: 0.96354556

00:16:31.630 --> 00:16:33.702 We do that based on seeing

NOTE Confidence: 0.96354556

00:16:33.702 --> 00:16:35.860 exactly where the disease has spread.

NOTE Confidence: 0.96354556

00:16:35.860 --> 00:16:38.316 So if it has gone to the lymph

NOTE Confidence: 0.96354556

00:16:38.316 --> 00:16:40.727 nodes that are still in the chest,

NOTE Confidence: 0.96354556

00:16:40.730 --> 00:16:43.655 or if it's a very advanced tumor in the lung

NOTE Confidence: 0.96354556

00:16:43.660 --> 00:16:45.285 that seems to be invading

NOTE Confidence: 0.96354556

00:16:45.285 --> 00:16:46.910 other structures in the chest,

NOTE Confidence: 0.96354556

00:16:46.910 --> 00:16:48.982 then that's often where we consider this

NOTE Confidence: 0.96354556

00:16:48.982 --> 00:16:51.457 to be locally advanced but not metastatic,

NOTE Confidence: 0.96354556

00:16:51.460 --> 00:16:54.268 meaning that it has not spread to other

NOTE Confidence: 0.96354556

00:16:54.268 --> 00:16:56.143 organs throughout the body like the

NOTE Confidence: 0.96354556

00:16:56.143 --> 00:16:58.610 brain or the liver or other areas.

NOTE Confidence: 0.96354556

00:16:58.610 --> 00:17:00.206 So in that case

NOTE Confidence: 0.96354556

00:17:00.206 --> 00:17:02.600 we still do approach this with

NOTE Confidence: 0.96354556

00:17:02.690 --> 00:17:04.898 the intent to cure,

NOTE Confidence: 0.96354556

00:17:04.900 --> 00:17:07.679 so we use some kind of combination,

NOTE Confidence: 0.96354556

00:17:07.680 --> 00:17:10.260 typically of chemotherapy with radiation.

NOTE Confidence: 0.96354556

00:17:10.260 --> 00:17:12.320 Or some kind of combination

NOTE Confidence: 0.96354556

00:17:12.320 --> 00:17:14.380 of chemo with surgery,

NOTE Confidence: 0.96354556

00:17:14.380 --> 00:17:17.257 with or without radiation, so for those patients

NOTE Confidence: 0.96354556

00:17:17.260 --> 00:17:18.908 it really depends on

00:17:20.150 --> 00:17:22.544 the similar features that

NOTE Confidence: 0.96354556

00:17:22.544 --> 00:17:25.500 we look for in early stage lung cancer.

NOTE Confidence: 0.96354556

00:17:25.500 --> 00:17:28.796 Given how much the patient can tolerate and what

NOTE Confidence: 0.96354556

00:17:28.800 --> 00:17:31.266 they're willing to tolerate,

NOTE Confidence: 0.96354556

00:17:31.270 --> 00:17:34.422 as well as the amount of

NOTE Confidence: 0.96354556

00:17:34.422 --> 00:17:37.449 disease that needs to be treated.

NOTE Confidence: 0.96354556

00:17:37.450 --> 00:17:40.858 The surgeons will weigh in about how much

NOTE Confidence: 0.96354556

00:17:40.860 --> 00:17:43.156 lung would have to be removed in

NOTE Confidence: 0.96354556

00:17:43.156 --> 00:17:45.712 order to do the adequate surgery

NOTE Confidence: 0.96354556

00:17:45.712 --> 00:17:48.700 and we will weigh in about how much

NOTE Confidence: 0.96354556

00:17:48.700 --> 00:17:51.106 the normal organs nearby will receive

NOTE Confidence: 0.96354556

00:17:51.106 --> 00:17:53.121 radiation therapy and how much

NOTE Confidence: 0.96354556

00:17:53.121 --> 00:17:55.529 we think the patient can take and

NOTE Confidence: 0.96354556

00:17:55.529 --> 00:17:57.901 ultimately will be able to come up

NOTE Confidence: 0.96354556

00:17:57.901 --> 00:17:59.878 with a recommendation about what the

NOTE Confidence: 0.96354556

00:17:59.878 --> 00:18:01.966 best approach is to usually combine

NOTE Confidence: 0.96354556

00:18:01.966 --> 00:18:04.585 at least two types of therapy and

NOTE Confidence: 0.96354556

00:18:04.585 --> 00:18:07.110 sometimes three in order to achieve the

NOTE Confidence: 0.985324

00:18:07.110 --> 00:18:09.108 best outcomes.

NOTE Confidence: 0.985324

00:18:09.108 --> 00:18:11.183 In early stage lung cancer,

NOTE Confidence: 0.985324

00:18:11.183 --> 00:18:13.556 you talked a little bit about

NOTE Confidence: 0.985324

00:18:13.556 --> 00:18:15.777 deciding between surgery and radiation,

NOTE Confidence: 0.985324

00:18:15.780 --> 00:18:19.119 and I think we get the concept that

NOTE Confidence: 0.985324

00:18:19.120 --> 00:18:21.505 both surgery and radiation therapy

NOTE Confidence: 0.985324

00:18:21.505 --> 00:18:24.318 are local modalities designed to

NOTE Confidence: 0.985324

00:18:24.318 --> 00:18:26.810 treat lung cancer in the lung itself.

NOTE Confidence: 0.985324

00:18:26.810 --> 00:18:29.850 So one question that comes up is,

NOTE Confidence: 0.985324

00:18:29.850 --> 00:18:32.779 if my cancer is resectable,

NOTE Confidence: 0.985324

00:18:32.780 --> 00:18:36.020 say I've got

NOTE Confidence: 0.985324

00:18:36.020 --> 00:18:37.909 locally advanced lung cancer,

NOTE Confidence: 0.985324

00:18:37.910 --> 00:18:40.040 I'm going to get chemotherapy.

NOTE Confidence: 0.985324

00:18:40.040 --> 00:18:42.180 The surgeons say it's resectable.

NOTE Confidence: 0.985324

00:18:42.180 --> 00:18:44.525 Having you decide then whether

NOTE Confidence: 0.985324

00:18:44.525 --> 00:18:47.322 to add more radiation therapy or

NOTE Confidence: 0.985324

00:18:47.322 --> 00:18:49.147 whether to leave it with

NOTE Confidence: 0.985324

00:18:49.150 --> 00:18:50.610 the surgery alone.

NOTE Confidence: 0.98504585

00:18:50.610 --> 00:18:53.116 Often we decide that we don't add

NOTE Confidence: 0.98504585

00:18:53.116 --> 00:18:54.979 more radiation therapy afterwards or

NOTE Confidence: 0.98504585

00:18:54.979 --> 00:18:57.520 we don't add radiation therapy at all.

NOTE Confidence: 0.98504585

00:18:57.520 --> 00:18:59.080 It's a conversation

NOTE Confidence: 0.98504585

00:18:59.080 --> 00:19:01.420 with the surgeon about whether or

00:19:03.350 --> 00:19:05.534 not they think they can resect this

NOTE Confidence: 0.98504585

00:19:05.534 --> 00:19:06.990 tumor after the chemotherapy.

NOTE Confidence: 0.98504585

00:19:06.990 --> 00:19:09.412 Sometimes they may prefer to have chemo

NOTE Confidence: 0.98504585

00:19:09.412 --> 00:19:11.350 and radiation together before surgery,

NOTE Confidence: 0.98504585

00:19:11.350 --> 00:19:13.765 or they may prefer to have the

NOTE Confidence: 0.98504585

00:19:13.765 --> 00:19:15.360 chemotherapy alone before surgery.

NOTE Confidence: 0.98504585

00:19:15.360 --> 00:19:17.964 We used to do more

NOTE Confidence: 0.98504585

00:19:17.964 --> 00:19:19.760 radiation therapy after surgery.

NOTE Confidence: 0.98504585

00:19:19.760 --> 00:19:21.520 But like you mentioned before,

NOTE Confidence: 0.98504585

00:19:21.520 --> 00:19:23.626 clinical trials being so important,

NOTE Confidence: 0.98504585

00:19:23.630 --> 00:19:25.622 there's been a recent clinical trial

NOTE Confidence: 0.98504585

00:19:25.622 --> 00:19:27.664 this past year that showed that

NOTE Confidence: 0.98504585

00:19:27.664 --> 00:19:29.620 for those patients who had certain

NOTE Confidence: 0.98504585

00:19:29.620 --> 00:19:32.259 types of lymph nodes or in certain

NOTE Confidence: 0.98504585

00:19:32.259 --> 00:19:33.799 locations, that adding radiation

NOTE Confidence: 0.98504585

00:19:33.799 --> 00:19:35.815 therapy after surgery may not be

NOTE Confidence: 0.98504585

00:19:35.815 --> 00:19:38.060 as necessary as we once thought.

NOTE Confidence: 0.98504585

00:19:38.060 --> 00:19:40.433 And so far the five year survival

NOTE Confidence: 0.98504585

00:19:40.433 --> 00:19:42.988 numbers have just been released as well

NOTE Confidence: 0.98504585

00:19:42.990 --> 00:19:45.454 for stage three disease and are at

NOTE Confidence: 0.98504585

00:19:45.454 --> 00:19:47.965 least 10% higher than we've ever seen

NOTE Confidence: 0.98504585

00:19:47.965 --> 00:19:51.009 in really any clinical trial.

NOTE Confidence: 0.98504585

00:19:51.010 --> 00:19:53.536 Either involving surgery or not involving surgery.

00:19:57.750 --> 00:19:59.900 I can't emphasize enough how

NOTE Confidence: 0.97029805

00:19:59.900 --> 00:20:02.050 important these clinical trials are

NOTE Confidence: 0.97029805

00:20:02.124 --> 00:20:04.476 to really moving the field forward.

NOTE Confidence: 0.97029805

00:20:04.480 --> 00:20:07.006 Are all patients eligible for immunotherapy given that data?

00:20:08.466 --> 00:20:11.204 Or do we look for certain biomarkers

NOTE Confidence: 0.97029805

00:20:11.204 --> 00:20:14.048 to decide whether or not they

NOTE Confidence: 0.97029805

00:20:14.048 --> 00:20:16.690 would be candidates for that?

NOTE Confidence: 0.97029805

00:20:16.690 --> 00:20:19.288 Most patients are eligible for it

NOTE Confidence: 0.97029805

00:20:19.288 --> 00:20:21.020 after chemotherapy and radiation

NOTE Confidence: 0.97029805

00:20:21.020 --> 00:20:23.715 if they have stage three disease,

NOTE Confidence: 0.97029805

00:20:23.720 --> 00:20:26.408 we may not always give it afterwards.

NOTE Confidence: 0.97029805

00:20:26.410 --> 00:20:28.335 Depending on their response to

NOTE Confidence: 0.97029805

00:20:28.335 --> 00:20:29.875 the chemotherapy and radiation,

NOTE Confidence: 0.97029805

00:20:29.880 --> 00:20:31.665 so we'd require before receiving

NOTE Confidence: 0.97029805

00:20:31.665 --> 00:20:33.901 that that we have another scan

NOTE Confidence: 0.97029805

00:20:33.901 --> 00:20:36.193 that shows that there's not new

NOTE Confidence: 0.97029805

00:20:36.193 --> 00:20:37.960 disease elsewhere already starting.

NOTE Confidence: 0.97029805

00:20:37.960 --> 00:20:40.165 We'd also want to be sure that

NOTE Confidence: 0.97029805

00:20:40.165 --> 00:20:42.042 patients have tolerated

NOTE Confidence: 0.97029805

00:20:42.042 --> 00:20:44.207 the chemotherapy and radiation well

NOTE Confidence: 0.97029805

00:20:44.207 --> 00:20:46.818 enough to start the immune therapy,

NOTE Confidence: 0.97029805

00:20:46.820 --> 00:20:48.800 and there's other biomarkers like

NOTE Confidence: 0.97029805

00:20:48.800 --> 00:20:51.430 PDL1 that are very helpful

NOTE Confidence: 0.97029805

00:20:51.430 --> 00:20:53.524 in determining how likely the patient

NOTE Confidence: 0.97029805

00:20:53.524 --> 00:20:56.409 is to respond to immunotherapy as well.

00:20:57.182 --> 00:21:00.270 Right now we still do offer it even for those

NOTE Confidence: 0.97029805

00:21:00.359 --> 00:21:03.295 who do not have the PDL1 marker.

00:21:04.112 --> 00:21:06.954 But it may not be as helpful

NOTE Confidence: 0.97029805

00:21:06.954 --> 00:21:09.683 in those patients as it is for

NOTE Confidence: 0.97029805

00:21:09.683 --> 00:21:12.109 those who have a high PD L1 expression.

NOTE Confidence: 0.97361296

00:21:12.110 --> 00:21:13.765 Given those data

NOTE Confidence: 0.97361296

00:21:13.765 --> 00:21:15.960 than the fact that we offer

NOTE Confidence: 0.97361296

00:21:15.960 --> 00:21:17.860 immunotherapy regardless of PDL1

NOTE Confidence: 0.97361296

00:21:17.860 --> 00:21:19.845 status and the fact

NOTE Confidence: 0.97361296

00:21:19.845 --> 00:21:21.433 that the clinical trials

NOTE Confidence: 0.97361296

00:21:21.440 --> 00:21:23.060 have demonstrated that chemo,

NOTE Confidence: 0.97361296

00:21:23.060 --> 00:21:25.085 radiation therapy followed by immune

NOTE Confidence: 0.97361296

00:21:25.085 --> 00:21:26.985 therapy without surgery offers

NOTE Confidence: 0.97361296

00:21:26.985 --> 00:21:28.425 tremendous survival benefits,

NOTE Confidence: 0.97361296

00:21:28.430 --> 00:21:31.052 do we ever offer surgery to

NOTE Confidence: 0.97361296

00:21:31.052 --> 00:21:32.800 stage three patients anymore?

NOTE Confidence: 0.97361296

00:21:32.800 --> 00:21:34.548 We still do.

NOTE Confidence: 0.984225

00:21:34.550 --> 00:21:36.438 I think there's certain circumstances

NOTE Confidence: 0.984225

00:21:36.438 --> 00:21:40.122 still where we don't know what the role

NOTE Confidence: 0.984225

00:21:40.122 --> 00:21:42.845 is yet of surgery with immunotherapy

NOTE Confidence: 0.984225

00:21:42.850 --> 00:21:46.346 and if we still get good outcomes from

NOTE Confidence: 0.984225

00:21:46.346 --> 00:21:48.968 let's say, chemo with surgery afterwards,

NOTE Confidence: 0.984225

00:21:48.968 --> 00:21:51.576 or chemo and radiation, then surgery

NOTE Confidence: 0.984225

00:21:51.576 --> 00:21:54.144 and we'd save the immunotherapy,

NOTE Confidence: 0.984225

00:21:54.150 --> 00:21:55.910 which didn't really exist during

NOTE Confidence: 0.984225

00:21:55.910 --> 00:21:58.170 the time of the surgical trials,

NOTE Confidence: 0.984225

00:21:58.170 --> 00:22:00.324 then you know, could we still

NOTE Confidence: 0.984225

00:22:00.324 --> 00:22:02.180 get good outcomes from that?

NOTE Confidence: 0.984225

00:22:02.180 --> 00:22:04.735 We believe we may be able to.

NOTE Confidence: 0.984225

00:22:04.740 --> 00:22:06.900 We still don't have that clinical

NOTE Confidence: 0.984225

00:22:06.900 --> 00:22:09.478 trial data yet to prove that yet.

NOTE Confidence: 0.984225

00:22:09.480 --> 00:22:11.310 But as we move forward,

NOTE Confidence: 0.984225

00:22:11.310 --> 00:22:13.440 there's other trials that are

NOTE Confidence: 0.984225

00:22:13.440 --> 00:22:15.658 currently being considered right now about

NOTE Confidence: 0.984225

00:22:15.658 --> 00:22:17.878 combining immunotherapy with surgery as well.

NOTE Confidence: 0.984225

00:22:17.880 --> 00:22:20.800 And even in the earlier stage setting that's

NOTE Confidence: 0.984225

00:22:20.800 --> 00:22:23.470 I think becoming more and more

NOTE Confidence: 0.984225

00:22:23.470 --> 00:22:25.720 studied seeing

NOTE Confidence: 0.984225

00:22:25.720 --> 00:22:28.619 if that is going to be helpful and

NOTE Confidence: 0.984225

00:22:28.619 --> 00:22:31.000 and as the months and even

NOTE Confidence: 0.984225

00:22:31.000 --> 00:22:33.584 as the days and weeks go by,

NOTE Confidence: 0.984225

00:22:33.590 --> 00:22:36.075 new data comes out all the time

NOTE Confidence: 0.984225

00:22:36.075 --> 00:22:37.881 from clinical trials that changed

NOTE Confidence: 0.984225

00:22:37.881 --> 00:22:40.219 the way we think about the best

NOTE Confidence: 0.98588306

00:22:40.220 --> 00:22:42.670 way of treating stage three lung cancer.

NOTE Confidence: 0.98588306

00:22:42.670 --> 00:22:44.847 And so when we were talking about

NOTE Confidence: 0.98588306

00:22:44.847 --> 00:22:47.001 stage one and even locally advanced

NOTE Confidence: 0.98588306

00:22:47.001 --> 00:22:49.299 up to stage three lung cancer,

NOTE Confidence: 0.98588306

00:22:49.300 --> 00:22:51.370 you used the term curative intent

NOTE Confidence: 0.98588306

00:22:51.370 --> 00:22:53.928 and can you explain to our listeners

NOTE Confidence: 0.98588306

00:22:53.930 --> 00:22:55.735 what you mean by curative intent and

00:22:57.540 --> 00:23:00.067 what the alternative is?

NOTE Confidence: 0.9851322

00:23:00.070 --> 00:23:02.772 The concept there is that we are

NOTE Confidence: 0.9851322

00:23:02.772 --> 00:23:04.967 hoping to eliminate the tumor so

NOTE Confidence: 0.9851322

00:23:04.967 --> 00:23:07.643 that it does not grow and come back

NOTE Confidence: 0.9851322

00:23:07.643 --> 00:23:10.177 at any point in the patients life.

NOTE Confidence: 0.9851322

00:23:10.180 --> 00:23:12.340 Are we always successful at that?

NOTE Confidence: 0.9851322

00:23:12.340 --> 00:23:14.434 No, but we would approach it

NOTE Confidence: 0.9851322

00:23:14.434 --> 00:23:16.670 with the intention of doing that,

NOTE Confidence: 0.9851322

00:23:16.670 --> 00:23:18.630 and that's supposed to palliative

NOTE Confidence: 0.9851322

00:23:18.630 --> 00:23:21.767 intent where the goal is to help with

NOTE Confidence: 0.9851322

00:23:21.767 --> 00:23:23.975 alleviate symptoms that may come up.

NOTE Confidence: 0.9851322

00:23:23.980 --> 00:23:26.801 For example, if the disease has

NOTE Confidence: 0.9851322

00:23:26.801 --> 00:23:29.010 already spread outside of the chest,

NOTE Confidence: 0.9851322

00:23:29.010 --> 00:23:31.410 we may be approaching the disease

NOTE Confidence: 0.9851322

00:23:31.410 --> 00:23:34.174 more in that capacity in terms of

NOTE Confidence: 0.9851322

00:23:34.174 --> 00:23:36.352 the treatments that we may offer.

NOTE Confidence: 0.9851322

00:23:36.360 --> 00:23:39.456 However, in the past five to 10 years,

NOTE Confidence: 0.9851322

00:23:39.460 --> 00:23:41.932 there's a lot of wiggle room in between

NOTE Confidence: 0.9851322

00:23:41.932 --> 00:23:44.322 where we may not necessarily believe

NOTE Confidence: 0.9851322

00:23:44.322 --> 00:23:46.872 we will completely eradicate the tumor

NOTE Confidence: 0.9851322

00:23:46.946 --> 00:23:49.136 with any combination of therapies,

NOTE Confidence: 0.9851322

00:23:49.140 --> 00:23:51.800 but that we believe we can extend

NOTE Confidence: 0.9851322

00:23:51.800 --> 00:23:54.170 survival and extend Disease Control

NOTE Confidence: 0.9851322

00:23:54.170 --> 00:23:55.286 for years afterwards,

NOTE Confidence: 0.9851322

00:23:55.286 --> 00:23:58.200 and we're often successful at doing that and

NOTE Confidence: 0.9851322

00:23:58.200 --> 00:24:00.615 that's often an important goal

NOTE Confidence: 0.9851322

00:24:00.615 --> 00:24:03.805 for a lot of patients is to live as

NOTE Confidence: 0.9851322

00:24:03.805 --> 00:24:06.442 long as possible and to turn their

NOTE Confidence: 0.9851322

00:24:06.442 --> 00:24:09.179 cancer into more of a chronic disease.

NOTE Confidence: 0.9851322

00:24:09.180 --> 00:24:11.876 And I think we're seeing that more and

NOTE Confidence: 0.9851322

00:24:11.876 --> 00:24:14.669 more with the advent of immunotherapy.

NOTE Confidence: 0.9851322

00:24:14.670 --> 00:24:16.495 Better combinations with surgery and

NOTE Confidence: 0.9851322

00:24:16.495 --> 00:24:17.955 chemotherapy and radiation therapy,

NOTE Confidence: 0.9851322

00:24:17.960 --> 00:24:20.156 as well as targeted therapy that

NOTE Confidence: 0.9851322

00:24:20.156 --> 00:24:21.620 specifically targets certain mutations,

NOTE Confidence: 0.9851322

00:24:21.620 --> 00:24:24.287 especially in lung cancer, that can often,

NOTE Confidence: 0.9851322

00:24:24.290 --> 00:24:27.006 even if they are not specifically curative,

NOTE Confidence: 0.9851322

00:24:27.010 --> 00:24:29.188 they may give patients multiple years

NOTE Confidence: 0.9851322

00:24:29.188 --> 00:24:31.952 of extra life and time before they

NOTE Confidence: 0.9851322

00:24:31.952 --> 00:24:34.017 require other kinds of therapies.

NOTE Confidence: 0.9877047

00:24:34.020 --> 00:24:36.348 So when you say that,

NOTE Confidence: 0.9877047

00:24:36.350 --> 00:24:39.008 I mean you're referring to stage

NOTE Confidence: 0.9877047

00:24:39.008 --> 00:24:41.498 four or metastatic patients in whom

NOTE Confidence: 0.9877047

00:24:43.740 --> 00:24:46.456 can still have many years of good quality of life.

NOTE Confidence: 0.9877047

00:24:46.460 --> 00:24:49.084 Tell us more about the use of radiation

NOTE Confidence: 0.9877047

00:24:49.084 --> 00:24:51.129 therapy in those circumstances?

NOTE Confidence: 0.9877047

00:24:51.130 --> 00:24:53.548 More and more we're using it

NOTE Confidence: 0.9877047

00:24:53.548 --> 00:24:55.160 because we're seeing such

NOTE Confidence: 0.9877047

00:24:55.160 --> 00:24:56.672 improved outcomes from our

NOTE Confidence: 0.9877047

00:24:56.672 --> 00:24:57.806 excellent systemic therapies,

NOTE Confidence: 0.9877047

00:24:57.810 --> 00:24:59.952 meaning the chemotherapies and immune

NOTE Confidence: 0.9877047

00:24:59.952 --> 00:25:01.980 therapies and also targeted therapies.

NOTE Confidence: 0.9877047

00:25:01.980 --> 00:25:04.640 Radiation has an increasing role as well.

NOTE Confidence: 0.9877047

00:25:04.640 --> 00:25:06.817 In stage four patients, we used to

NOTE Confidence: 0.9877047

00:25:06.817 --> 00:25:09.180 be limited to alleviating symptoms,

NOTE Confidence: 0.9877047

00:25:09.180 --> 00:25:11.205 which radiation is very effective

NOTE Confidence: 0.9877047

00:25:11.205 --> 00:25:13.982 in doing over a very low dose

NOTE Confidence: 0.9877047

00:25:13.982 --> 00:25:16.004 and a short period of time.

NOTE Confidence: 0.9877047

00:25:16.010 --> 00:25:18.296 However, with this SBRT technique that

NOTE Confidence: 0.9877047

00:25:18.296 --> 00:25:21.308 we've been using for stage one lung cancer,

NOTE Confidence: 0.9877047

00:25:21.310 --> 00:25:24.334 we often use this in the metastatic setting especially

00:25:25.210 --> 00:25:27.820 for those who have disease called

NOTE Confidence: 0.9877047

00:25:27.820 --> 00:25:29.665 oligometastatic disease and what

NOTE Confidence: 0.9877047

00:25:29.665 --> 00:25:32.250 this means is that only a few spots,

NOTE Confidence: 0.9877047

00:25:32.250 --> 00:25:35.218 maybe one or three or even five spots,

NOTE Confidence: 0.9877047

00:25:35.220 --> 00:25:37.404 may be present

NOTE Confidence: 0.9877047

00:25:37.404 --> 00:25:40.425 outside of the lung and if we can

NOTE Confidence: 0.9877047

00:25:40.425 --> 00:25:42.285 use either surgery or radiation,

NOTE Confidence: 0.9877047

00:25:42.290 --> 00:25:44.789 some kind of local therapy to address

NOTE Confidence: 0.9877047

00:25:44.789 --> 00:25:46.697 those areas after systemic therapy

NOTE Confidence: 0.9877047

00:25:46.697 --> 00:25:48.989 has worked well for a patient,

NOTE Confidence: 0.9877047

00:25:48.990 --> 00:25:51.470 then we may be able to really extend

NOTE Confidence: 0.9877047

00:25:51.470 --> 00:25:53.935 their time without needing systemic

NOTE Confidence: 0.9877047

00:25:53.935 --> 00:25:56.160 therapy and having good disease

NOTE Confidence: 0.9877047

00:25:56.160 --> 00:25:57.955 control so it's something that

NOTE Confidence: 0.9877047

00:25:57.955 --> 00:25:59.391 we're seeing improved survival

NOTE Confidence: 0.9877047

00:25:59.391 --> 00:26:01.168 from clinical trials recently.

NOTE Confidence: 0.9877047

00:26:01.170 --> 00:26:03.480 When you add radiation or surgery

NOTE Confidence: 0.9877047

00:26:03.480 --> 00:26:05.020 in very selected populations,

NOTE Confidence: 0.9877047

00:26:05.020 --> 00:26:07.120 meaning those who responded well

NOTE Confidence: 0.9877047

00:26:07.120 --> 00:26:09.220 to their systemic therapy and

NOTE Confidence: 0.9877047

00:26:09.291 --> 00:26:11.706 who have a limited number and

NOTE Confidence: 0.9877047

00:26:11.706 --> 00:26:13.933 treatable areas where we

NOTE Confidence: 0.9877047

00:26:13.933 --> 00:26:15.793 can use surgery or radiation,

NOTE Confidence: 0.9877047

00:26:15.800 --> 00:26:18.110 these patients have

00:26:21.062 --> 00:26:23.445 been able to live longer

NOTE Confidence: 0.9877047

00:26:23.445 --> 00:26:25.415 than they would have otherwise.

NOTE Confidence: 0.9890817

00:26:26.150 --> 00:26:28.949 We talked a lot in

NOTE Confidence: 0.9890817

00:26:28.949 --> 00:26:31.912 this show so far about clinical trials

NOTE Confidence: 0.9890817

00:26:31.912 --> 00:26:34.133 and historically people have always

NOTE Confidence: 0.9890817

00:26:34.133 --> 00:26:36.707 thought that clinical trials were only

NOTE Confidence: 0.9890817

00:26:36.707 --> 00:26:39.580 for patients who had no other option.

NOTE Confidence: 0.9890817

00:26:39.580 --> 00:26:41.950 Patients who had stage four disease.

NOTE Confidence: 0.9890817

00:26:41.950 --> 00:26:44.736 But it sounds like that clearly is

NOTE Confidence: 0.9890817

00:26:44.736 --> 00:26:47.876 not the case and that

NOTE Confidence: 0.9890817

00:26:47.880 --> 00:26:51.100 there are clinical trials that are offered

NOTE Confidence: 0.9890817

00:26:51.100 --> 00:26:53.721 across various different stages to allow

NOTE Confidence: 0.9890817

00:26:53.721 --> 00:26:56.055 patients to get the best therapies.

NOTE Confidence: 0.9890817

00:26:56.060 --> 00:26:57.980 What clinical trials are currently

NOTE Confidence: 0.9890817

00:26:57.980 --> 00:27:00.010 ongoing that you're most excited about?

NOTE Confidence: 0.935663

00:27:00.890 --> 00:27:03.522 We have a lot of clinical trials ongoing

NOTE Confidence: 0.935663

00:27:03.522 --> 00:27:05.829 right now at yield in lung cancer,

NOTE Confidence: 0.935663

00:27:05.830 --> 00:27:08.133 but specific to radiation we actually have

NOTE Confidence: 0.935663

00:27:08.133 --> 00:27:10.429 three right now for stage one disease,

NOTE Confidence: 0.935663

00:27:10.430 --> 00:27:12.830 so exactly the opposite of what we had

NOTE Confidence: 0.935663

00:27:12.830 --> 00:27:15.369 been used to seeing for clinical trials,

NOTE Confidence: 0.935663

00:27:15.370 --> 00:27:17.524 and that they're really often used

NOTE Confidence: 0.935663

00:27:17.524 --> 00:27:19.306 like you're saying for patients

NOTE Confidence: 0.935663

00:27:19.306 --> 00:27:21.287 as a sort of a last resort.

NOTE Confidence: 0.935663

00:27:21.290 --> 00:27:23.258 It's really the opposite for us,

NOTE Confidence: 0.935663

00:27:23.260 --> 00:27:25.240 where we're trying to approach this

NOTE Confidence: 0.935663

00:27:25.240 --> 00:27:28.472 to improve the standard of care

NOTE Confidence: 0.935663

00:27:28.472 --> 00:27:31.676 even more at all stages of disease.

NOTE Confidence: 0.935663

00:27:31.680 --> 00:27:33.997 So for example, stage one lung cancer,

NOTE Confidence: 0.935663

00:27:34.000 --> 00:27:35.328 we do have a two clinical trials

NOTE Confidence: 0.935663

00:27:36.990 --> 00:27:38.910 one that's currently active and one

NOTE Confidence: 0.935663

00:27:38.910 --> 00:27:41.178 that is about to open fairly

NOTE Confidence: 0.935663

00:27:41.178 --> 00:27:44.117 soon that look at the idea of SBRT with

NOTE Confidence: 0.935663

00:27:44.117 --> 00:27:46.283 immune therapy for stage one disease.

NOTE Confidence: 0.935663

00:27:46.290 --> 00:27:48.614 So half the patients will get the

NOTE Confidence: 0.935663

00:27:48.614 --> 00:27:50.284 standard of care, radiation therapy,

NOTE Confidence: 0.935663

00:27:50.284 --> 00:27:52.306 and half the patients will also

NOTE Confidence: 0.935663

00:27:52.306 --> 00:27:53.918 get immune therapy as well.

NOTE Confidence: 0.935663

00:27:53.920 --> 00:27:56.638 And that's our way of studying to see if

NOTE Confidence: 0.935663

00:27:56.638 --> 00:27:59.344 will get even better outcomes with SBRT

NOTE Confidence: 0.935663

00:27:59.344 --> 00:28:02.250 and with immune therapy and try to prevent

NOTE Confidence: 0.935663

00:28:02.250 --> 00:28:03.434 recurrences that happened

NOTE Confidence: 0.935663

00:28:03.434 --> 00:28:04.618 elsewhere in the body,

NOTE Confidence: 0.935663

00:28:04.620 --> 00:28:06.390 in the lymph nodes or elsewhere,

NOTE Confidence: 0.935663

00:28:06.390 --> 00:28:07.278 so I'm very,

NOTE Confidence: 0.935663

00:28:07.278 --> 00:28:08.758 very excited about those studies,

NOTE Confidence: 0.935663

00:28:08.760 --> 00:28:10.785 and I also have a study of my own

NOTE Confidence: 0.935663

00:28:10.785 --> 00:28:13.060 as well that looks at a clinical

NOTE Confidence: 0.935663

00:28:13.060 --> 00:28:15.087 trial that's looking at a fewer

NOTE Confidence: 0.935663

00:28:15.087 --> 00:28:17.313 number of sessions of SBRT for those

NOTE Confidence: 0.935663

00:28:17.313 --> 00:28:19.236 tumors that are a little closer to

NOTE Confidence: 0.935663

00:28:19.236 --> 00:28:21.266 the middle of the chest and trying

NOTE Confidence: 0.935663

00:28:21.266 --> 00:28:23.072 to make it more convenient and

NOTE Confidence: 0.935663

00:28:23.072 --> 00:28:25.037 for patients they only come in

NOTE Confidence: 0.935663

00:28:25.040 --> 00:28:27.248 three times instead

NOTE Confidence: 0.935663

00:28:27.248 --> 00:28:29.365 of five times for tumors that are

NOTE Confidence: 0.935663

00:28:29.365 --> 00:28:31.550 closer to the middle of the chest.

NOTE Confidence: 0.9281571

00:28:32.320 --> 00:28:34.600 Henry Park is an assistant

NOTE Confidence: 0.9281571

00:28:34.600 --> 00:28:36.120 professor of therapeutic radiology

NOTE Confidence: 0.9281571

00:28:36.180 --> 00:28:37.938 at the Yale School of Medicine.

NOTE Confidence: 0.9281571

00:28:37.940 --> 00:28:39.512 If you have questions,

NOTE Confidence: 0.9281571

00:28:39.512 --> 00:28:41.084 the address is canceranswers@yale.edu

NOTE Confidence: 0.9281571

00:28:41.084 --> 00:28:43.250 and past editions of the program

NOTE Confidence: 0.9281571

00:28:43.250 --> 00:28:45.230 are available in audio and written

NOTE Confidence: 0.9281571

00:28:45.293 --> 00:28:47.057 form at YaleCancerCenter.org

NOTE Confidence: 0.9281571

00:28:47.060 --> 00:28:49.324 We hope you'll join us next week to

NOTE Confidence: 0.9281571

00:28:49.324 --> 00:28:51.506 learn more about the fight against

NOTE Confidence: 0.9281571

00:28:51.506 --> 00:28:53.446 cancer here on Connecticut Public Radio.

NOTE Confidence: 0.9281571

00:28:53.446 --> 00:28:55.371 Funding for Yale Cancer

NOTE Confidence: 0.9281571

00:28:55.371 --> 00:28:57.216 Answers is provided by Smilow

NOTE Confidence: 0.9281571

00:28:57.216 --> 00:29:00.070 Cancer Hospital and AstraZeneca.