0:00:00 –> 0:00:01.786 Funding for Yale Cancer Answers

0:00:01.786 –> 0:00:03.932 is provided by Smilow Cancer

0:00:03.932 –> 0:00:05.704 Hospital and AstraZeneca.

0:00:07.99 –> 0:00:09.868 Welcome to Yale Cancer Answers with

0:00:09.868 –> 0:00:12.396 your host doctor Anees Chagpar.

0:00:12.396 –> 0:00:14.342 Yale Cancer Answers features the

0:00:14.342 –> 0:00:16.52 latest information on cancer care by

0:00:16.581 –> 0:00:18.013 welcoming oncologists and specialists

0:00:18.013 –> 0:00:20.504 who are on the forefront of the

0:00:20.504 –> 0:00:22.388 battle to fight cancer. This week

0:00:22.388 –> 0:00:24.233 it's a conversation about multiple

0:00:24.233 –> 0:00:25.873 myeloma and other hematologic

0:00:25.873 –> 0:00:28.218 conditions with Doctor Terri Parker.

0:00:28.22 –> 0:00:30.278 Dr Parker is an assistant professor

0:00:30.278 –> 0:00:31.997 of medicine in hematology at

0:00:31.997 –> 0:00:33.447 the Yale School of Medicine,

0:00:33.45 –> 0:00:36.11 where Doctor Chagpar is a

0:00:36.11 –> 0:00:38.238 professor of surgical oncology.

0:00:38.62 –> 0:00:39.943 Terri, maybe we can start off by you

0:00:39.943 –> 0:00:41.282 telling us a little bit about

0:00:41.282 –> 0:00:42.722 yourself and about what you do.

0:00:43.47 –> 0:00:45.99 My specialty focuses on plasma cell

0:00:45.99 –> 0:00:48.44 neoplasms or plasma cell disorders.

0:00:48.44 –> 0:00:50.722 The most common of which is multiple

0:00:50.722 –> 0:00:52.414 myeloma, which is considered to

0:00:52.414 –> 0:00:53.778 be a haematological malignancy.

0:00:54.09 –> 0:00:56.589 So let's back up a little bit.

0:00:56.59 –> 0:00:58.966 What exactly is a plasma cell?

0:00:59.21 –> 0:01:01.03 A plasma cell is a

0:01:01.03 –> 0:01:02.814 type of white blood cell that

0:01:02.814 –> 0:01:04.68 is found in the bone marrow.

1

0:01:04.68 –> 0:01:06.96 It's derived from a B lymphocyte,

0:01:06.96 –> 0:01:08.496 which is another type of white

0:01:08.5 –> 0:01:10.548 blood cell again found in the bone marrow.

0:01:11.08 –> 0:01:13.798 Tell us about multiple

0:01:13.798 –> 0:01:16.2 myeloma and what exactly it is.

0:01:16.2 –> 0:01:17.982 I mean when we think about

0:01:17.982 –> 0:01:19.6 cancers of white blood cells,

0:01:19.6 –> 0:01:22.4 oftentimes we're thinking about leukemias

0:01:22.4 –> 0:01:24.388 lymphomas, is multiple myeloma

0:01:24.388 –> 0:01:26.376 a type of that,

0:01:26.38 –> 0:01:28.708 is it different? Tell us more.

0:01:28.99 –> 0:01:30.745 As stated, a multiple

0:01:30.745 –> 0:01:33.048 myeloma is considered to be a

0:01:33.048 –> 0:01:34.98 hematological malignancy and so

0:01:34.98 –> 0:01:36.912 that term encompasses leukemias,

0:01:36.92 –> 0:01:39.75 lymphomas, and plasma cell neoplasms,

0:01:39.75 –> 0:01:42.198 of which multiple myeloma is one.

0:01:42.2 –> 0:01:44.165 So in multiple myeloma the

0:01:44.165 –> 0:01:46.13 abnormal cell is a plasma cell

0:01:46.13 –> 0:01:48.944 and these plasma cells proliferate or

0:01:48.944 –> 0:01:52.178 increase in number in the bone marrow.

0:01:52.18 –> 0:01:54.286 It's really not known what causes

0:01:54.286 –> 0:01:56.76 the plasma cells to proliferate in

0:01:56.76 –> 0:01:58.384 the majority of individuals,

0:01:58.384 –> 0:02:00.414 and it's this proliferation that

0:02:00.414 –> 0:02:02.66 is defined as multiple myeloma.

0:02:07.936 –> 0:02:10.786 In general, blood cancers

0:02:10.786 –> 0:02:13.159 are pretty rare, right?

0:02:13.17 –> 0:02:15.046 If you look at multiple myeloma,

0:02:15.05 –> 0:02:16.83 it's currently the 14th most

0:02:16.83 –> 0:02:19.082 common cancer in the United States

0:02:19.082 –> 0:02:21.067 and it represents roughly 1.8%

0:02:21.067 –> 0:02:23.209 of all new cancers diagnosed

0:02:23.21 –> 0:02:24.694 so not as common as some of

0:02:24.694 –> 0:02:25.96 our solid tumors that we see.

0:02:26.31 –> 0:02:28.728 And where does it rank relative

0:02:28.728 –> 0:02:30.703 to leukemia and lymphoma?

0:02:30.703 –> 0:02:33.678 There's some leukemias

0:02:33.69 –> 0:02:36.003 that are more common and some that are rare,

0:02:36.01 –> 0:02:38.236 so probably somewhere in

0:02:38.236 –> 0:02:41.057 the middle, not to be too specific.

0:02:41.44 –> 0:02:44.715 And who gets

0:02:44.715 –> 0:02:47.335 these blood cell cancers?

0:02:47.34 –> 0:02:48.522 These hematologic malignancies.

0:02:48.522 –> 0:02:51.28 Are there certain risk factors that put

0:02:51.335 –> 0:02:53.249 people at risk for developing them?

0:02:53.89 –> 0:02:56.752 As I stated previously

0:02:56.752 –> 0:02:58.183 for multiple myeloma,

0:02:58.19 –> 0:03:00.286 for most people we don't really know

0:03:00.286 –> 0:03:01.726 why they developed the disease.

0:03:01.73 –> 0:03:04.145 However, there are some factors that may

0:03:04.145 –> 0:03:06.73 increase the risk of developing myeloma.

0:03:06.73 –> 0:03:09.75 One is age, so the majority of people

0:03:09.75 –> 0:03:12.854 are over the age of 50 at diagnosis.

0:03:12.86 –> 0:03:15.009 With the current median age of diagnosis

0:03:15.009 –> 0:03:17.539 here in the United States being 69,

0:03:17.539 –> 0:03:20.682 another risk factor is a precursor condition

0:03:20.682 –> 0:03:24.417 known as Monoclonal gammopathy of undetermined significance

0:03:24.42 –> 0:03:26.356 also known as MGUS.

0:03:29.74 –> 0:03:31.99 Tell us more about that.

0:03:32.02 –> 0:03:35.296 MGUS is considered to be a precursor condition

0:03:35.296 –> 0:03:38.252 and the individuals are asymptomatic and

0:03:38.252 –> 0:03:41.198 it's usually discovered when blood

0:03:41.198 –> 0:03:44.067 work is done for another complaint,

0:03:44.07 –> 0:03:46.926 sometimes it can be that a primary care

0:03:46.926 –> 0:03:49.058 physician notices that there's an increase

0:03:49.058 –> 0:03:51.78 in protein in a simple serum chemistry.

0:03:51.78 –> 0:03:53.694 So that's a blood test that's

0:03:53.694 –> 0:03:54.97 done for another reason.

0:03:54.97 –> 0:03:57.11 Sometimes this laboratory work is

0:03:57.11 –> 0:03:59.851 done for evaluation of other problems

0:03:59.851 –> 0:04:02.496 such as osteoporosis or neuropathies

0:04:03.43 –> 0:04:05.6 and then they get referred to a

0:04:05.664 –> 0:04:07.839 hematologist and have further evaluation

0:04:07.839 –> 0:04:10.44 that then reveals this precursor state.

0:04:11.1 –> 0:04:15.249 Those are pretty

0:04:15.249 –> 0:04:17.72 general risk factors in terms of age

0:04:17.72 –> 0:04:20.41 and MGUS for multiple myeloma.

0:04:20.41 –> 0:04:22.558 Are there risk factors for lymphoma

0:04:22.558 –> 0:04:24.7 and leukemia as well?

0:04:29.04 –> 0:04:31.203 In general, age again plays a

0:04:31.203 –> 0:04:34.215 factor as we do tend to see certain

0:04:34.215 –> 0:04:35.827 leukemias in older individuals.

0:04:35.83 –> 0:04:38.15 It again depends on the type of leukemia,

0:04:38.15 –> 0:04:39.15 as there are different types.

0:04:39.15 –> 0:04:42.18 Acute and chronic lymphoid versus

0:04:42.18 –> 0:04:45.658 myeloid. And other potential risks

0:04:45.658 –> 0:04:48.526 can include environmental exposures,

0:04:48.53 –> 0:04:50.42 so there have been studies looking

0:04:50.42 –> 0:04:52.57 at the link between radiation in

0:04:52.57 –> 0:04:54.64 addition to certain chemical exposures

0:04:54.64 –> 0:04:56.879 such as pesticides or Agent Orange.

0:04:58.26 –> 0:05:01.76 And so those increase your risk of

0:05:01.76 –> 0:05:04.028 leukemias and lymphomas, but not

0:05:04.028 –> 0:05:05.75 of multiple myeloma. Is that right?

0:05:06.22 –> 0:05:07.627 Multiple Myeloma as well,

0:05:07.63 –> 0:05:09.46 there have been studies

0:05:09.46 –> 0:05:11.29 specifically looking at Agent Orange

0:05:11.354 –> 0:05:13.388 and pesticides as well as radiation

0:05:14.01 –> 0:05:16.354 so you know pesticides is something that I

0:05:16.354 –> 0:05:18.999 think a lot of people kind of worry about.

0:05:19 –> 0:05:21.502 And you know, as we're heading into the fall,

0:05:21.51 –> 0:05:23.412 people are still using

0:05:23.412 –> 0:05:25.42 pesticides as they're trying to

0:05:25.42 –> 0:05:27.24 tend their lawn and do their gardening,

0:05:27.24 –> 0:05:29.048 get everything ready

0:05:29.048 –> 0:05:30.418 for the winter.

0:05:30.418 –> 0:05:33.172 Should people really be concerned about

0:05:33.172 –> 0:05:35.481 pesticides or are there particular

0:05:35.481 –> 0:05:38.109 pesticides that they should watch out

0:05:38.109 –> 0:05:40.73 for and others that might be safer?

0:05:40.74 –> 0:05:42.756 That's a good question and I don't

0:05:42.756 –> 0:05:44.414 have a specific answer for you

0:05:44.414 –> 0:05:46.644 and a lot of these are

0:05:46.644 –> 0:05:49.304 looked at and some of the common

0:05:49.304 –> 0:05:51.124 pesticides that people may use

0:05:51.124 –> 0:05:53.633 may have warnings on them most of

0:05:53.633 –> 0:05:55.595 the time people are usually safe

0:05:55.595 –> 0:05:57.647 because they're using the regular

0:05:57.647 –> 0:05:59.307 household pesticides or chemicals

0:05:59.307 –> 0:06:01.764 if you will and ventilated

0:06:01.764 –> 0:06:03.388 outdoor space and really

0:06:03.388 –> 0:06:04.86 have minimal exposure.

0:06:05.4 –> 0:06:07.112 I think that that's

0:06:07.112 –> 0:06:09.008 kind of good information to get across.

0:06:09.01 –> 0:06:10.134 Just because

0:06:10.134 –> 0:06:11.539 people can sometimes worry about

0:06:11.539 –> 0:06:13.117 these things, but

0:06:13.117 –> 0:06:15.698 it may be that it's really not as

0:06:15.698 –> 0:06:17.744 toxic as some people may think,

0:06:17.75 –> 0:06:20.711 unless you're in contact

0:06:20.711 –> 0:06:23.689 with them in large quantities.

0:06:23.69 –> 0:06:25.958 So now that we've talked

0:06:25.958 –> 0:06:27.47 about the risk factors,

0:06:27.47 –> 0:06:30.695 how do people present with

0:06:30.695 –> 0:06:32.63 these hematologic malignancies?

0:06:32.63 –> 0:06:36.62 For a solid tumor,

0:06:36.62 –> 0:06:39.3 tumors we often can find a lump,

0:06:39.3 –> 0:06:42.045 or we'll have some bleeding

0:06:42.045 –> 0:06:44.79 or will have some pain.

0:06:44.79 –> 0:06:46.366 Blood cells don't generally

0:06:46.366 –> 0:06:48.35 cause those things, do they?

0:06:51.19 –> 0:06:53.255 If we walk

0:06:53.255 –> 0:06:55.09 through each thing individually,

0:06:55.09 –> 0:06:57.52 for patients who have leukemia

0:06:57.52 –> 0:06:59.97 a lot of times they will present

0:06:59.97 –> 0:07:01.56 with abnormal blood counts.

0:07:01.56 –> 0:07:03.246 By that I mean an abnormal

0:07:03.246 –> 0:07:04.37 white blood cell count,

0:07:04.37 –> 0:07:07.406 hemoglobin or red cells or platelets,

0:07:07.41 –> 0:07:09.853 which are the cell that helps prevent

0:07:09.853 –> 0:07:11.918 you from bleeding or blood clots.

0:07:11.92 –> 0:07:15.217 Sometimes an individual will be diagnosed

0:07:15.22 –> 0:07:17.334 when they have a blood count done

0:07:17.334 –> 0:07:19.391 for another reason and it's picked

0:07:19.391 –> 0:07:21.206 up because there's an abnormality.

0:07:21.21 –> 0:07:23.575 Sometimes people present because these

0:07:23.575 –> 0:07:25.94 abnormalities lead to other symptoms.

0:07:25.94 –> 0:07:27.215 For example, if there's an

0:07:27.215 –> 0:07:28.78 alteration in a white blood cell

0:07:28.78 –> 0:07:30.78 count is specifically a lower

0:07:30.78 –> 0:07:32.38 white blood cell count,

0:07:32.38 –> 0:07:35.542 someone may develop more frequent or

0:07:35.542 –> 0:07:37.7 recurrent infections if the red cells or

0:07:37.7 –> 0:07:38.861 hemoglobin is low.

0:07:38.861 –> 0:07:40.796 That's also known as anemia,

0:07:40.8 –> 0:07:42.735 and patients can

0:07:42.735 –> 0:07:44.67 become more tired or fatigued,

0:07:44.67 –> 0:07:45.86 and if their platelet count

0:07:45.86 –> 0:07:47.87 is reduced they can present

0:07:47.87 –> 0:07:49.88 with bleeding or easy bruising,

0:07:49.88 –> 0:07:51.865 so sometimes these people present

0:07:51.865 –> 0:07:54.262 because they have other symptoms and

0:07:54.262 –> 0:07:56.32 then it's revealed that these symptoms

0:07:56.32 –> 0:07:58.499 are because of a low blood count.

0:07:58.5 –> 0:08:00.65 For individuals who have lymphomas,

0:08:00.65 –> 0:08:02.702 sometimes they will present with a

0:08:02.702 –> 0:08:05.071 large lymph node and so in that case

0:08:05.071 –> 0:08:07.559 they may have a lump or bump if you will

0:08:07.56 –> 0:08:11.34 that causes them to present to medical

0:08:11.34 –> 0:08:13.68 attention and then for multiple myeloma,

0:08:13.68 –> 0:08:16.228 which is what I specifically focus in,

0:08:16.23 –> 0:08:18.3 sometimes people will not have any

0:08:18.3 –> 0:08:20.077 symptoms and again it's picked

0:08:20.077 –> 0:08:22.075 up because blood work is done

0:08:22.075 –> 0:08:23.074 for another reason,

0:08:23.08 –> 0:08:26.144 like an elevated total protein on a serum

0:08:26.144 –> 0:08:28.585 chemistry which is a type of blood test.

0:08:28.59 –> 0:08:30.126 Other symptoms that individuals

0:08:30.126 –> 0:08:32.43 could have could again be anemia.

0:08:32.43 –> 0:08:34.453 If the plasma cells increase in the

0:08:34.453 –> 0:08:36.706 bone marrow to the point where they

0:08:36.706 –> 0:08:38.686 start crowding out the normal cells,

0:08:38.69 –> 0:08:40.706 plasma cells also produce high amounts

0:08:40.706 –> 0:08:43.249 of protein that can be seen in the

0:08:43.249 –> 0:08:44.953 blood that are cleared through the

0:08:45.013 –> 0:08:46.993 kidneys and could lead to renal

0:08:46.993 –> 0:08:48.721 dysfunction or failure in severe

0:08:48.721 –> 0:08:51.528 cases if it has not been recognized,

0:08:51.53 –> 0:08:54.306 and plasma cells also accumulate in the bone,

0:08:54.31 –> 0:08:56.27 that can lead to weakness of the

0:08:56.27 –> 0:08:58.249 bone and hence pain or fractures.

0:08:59.67 –> 0:09:02.53 And so it sounds like a lot of these are

0:09:02.605 –> 0:09:05.16 really picked up on basic blood tests

0:09:05.16 –> 0:09:08.259 that you have when you go to your doctor.

0:09:08.26 –> 0:09:10.57 So how frequently should you be

0:09:10.57 –> 0:09:12.51 having routine blood tests done?

0:09:12.51 –> 0:09:14.478 Especially if these things don't generally

0:09:14.478 –> 0:09:17.1 present with a lot of symptoms?

0:09:17.53 –> 0:09:20.422 There isn't currently

0:09:20.422 –> 0:09:22.35 screening that's recommended

0:09:22.429 –> 0:09:24.729 for multiple myeloma or MGUS

0:09:24.73 –> 0:09:27.09 which is the precursor condition.

0:09:27.09 –> 0:09:29.71 So typically we tell patients

0:09:29.71 –> 0:09:31.46 to follow the guidance from

0:09:31.46 –> 0:09:32.86 their primary care physician,

0:09:32.86 –> 0:09:35.52 meaning their blood work really depends

0:09:35.52 –> 0:09:37.922 on other medical problems.

0:09:37.922 –> 0:09:39.266 For example, if someone

0:09:39.266 –> 0:09:40.61 has a heart condition,

0:09:40.61 –> 0:09:43.25 diabetes or another medical issue,

0:09:43.25 –> 0:09:45.344 they're probably going to have blood

0:09:45.344 –> 0:09:47.153 work done more frequently because

0:09:47.153 –> 0:09:49.247 of monitoring of that condition and

0:09:49.247 –> 0:09:51.26 the medications that are needed.

0:09:54.171 –> 0:09:56.577 When you talk about these

0:09:56.577 –> 0:09:59.01 conditions being found in older patients,

0:10:00.183 –> 0:10:02.92 who are also the ones more likely

0:10:02.995 –> 0:10:05.3 to have other comorbidities that

0:10:05.3 –> 0:10:07.605 will require routine blood tests,

0:10:07.61 –> 0:10:10.562 I wonder how many people who are younger

0:10:10.562 –> 0:10:13.531 might be walking around completely

0:10:13.531 –> 0:10:16.443 asymptomatic but actually harboring

0:10:16.443 –> 0:10:19.661 one of these hematologic malignancies

0:10:19.661 –> 0:10:21.698 that have never been picked up simply

0:10:21.698 –> 0:10:23.348 because they've never had a blood test.

0:10:23.35 –> 0:10:26.213 Is that possible or do these things

0:10:26.213 –> 0:10:28.291 actually then progress to the

0:10:28.291 –> 0:10:30.33 point of being symptomatic?

0:10:30.36 –> 0:10:32.586 Again when you talk about

0:10:32.586 –> 0:10:33.463 hematologic malignancies

0:10:33.463 –> 0:10:36.984 that's a very broad topic and so

0:10:36.984 –> 0:10:40.178 everyone is very individualized.

0:10:40.178 –> 0:10:42.684 And so if we look at multiple

0:10:42.684 –> 0:10:44.38 myeloma for individuals with

0:10:44.38 –> 0:10:46.865 the precursor condition MGUS,

0:10:46.87 –> 0:10:49.294 they can be asymptomatic for years

0:10:49.294 –> 0:10:52.07 and for many patients

0:10:52.07 –> 0:10:54.525 it never progresses.

0:10:54.525 –> 0:10:56.295 For individuals who have a low risk

0:10:56.3 –> 0:10:57.876 MGUS we

0:10:59.85 –> 0:11:01.824 tell them that the risk of

0:11:01.824 –> 0:11:03.428 progression is roughly 1% per year.

0:11:03.428 –> 0:11:05.521 So there's a large majority of

0:11:05.521 –> 0:11:07.29 people who will never progress.

0:11:07.29 –> 0:11:09.305 If someone has multiple myeloma

0:11:09.305 –> 0:11:10.917 and it's left untreated,

0:11:10.92 –> 0:11:13.104 it will progress to the point where

0:11:13.104 –> 0:11:15.068 they may develop syptoms,

0:11:15.07 –> 0:11:17.455 what was discussed being

0:11:17.455 –> 0:11:19.84 anemia leading to fatigue, potential

0:11:19.84 –> 0:11:22.65 kidney damage, or bone damage,

0:11:22.65 –> 0:11:24.792 so those patients will progress and

0:11:24.792 –> 0:11:26.63 become symptomatic at some point,

0:11:26.63 –> 0:11:28.195 it's difficult to predict that

0:11:28.195 –> 0:11:29.134 rate of progression.

0:11:29.86 –> 0:11:32.18 And what about

0:11:32.18 –> 0:11:34.916 for lymphomas and leukemias?

0:11:34.92 –> 0:11:37.61 Are those also ones that

0:11:37.61 –> 0:11:39.762 will progress to symptoms?

0:11:39.77 –> 0:11:41.737 Or is it possible for them to

0:11:41.737 –> 0:11:43.388 be pretty asymptomatic until

0:11:43.388 –> 0:11:46.124 they actually end up having a

0:11:46.124 –> 0:11:48.408 test that that diagnosis it?

0:11:48.41 –> 0:11:50.868 Yeah, so for your acute leukemias,

0:11:50.88 –> 0:11:52.77 and even the majority of

0:11:52.77 –> 0:11:53.904 your chronic leukemias,

0:11:53.91 –> 0:11:56.18 they will often progress again,

0:11:56.18 –> 0:11:59.026 varying rates of progression to the point

0:11:59.026 –> 0:12:00.209 where people will become symptomatic.

0:12:00.209 –> 0:12:02.663 Similarly, if someone had an aggressive

0:12:02.663 –> 0:12:05.198 lymphoma or a high grade lymphoma,

0:12:05.2 –> 0:12:07.464 they would progress to the point of symptoms.

0:12:07.47 –> 0:12:09.655 It is possible for individuals

0:12:09.655 –> 0:12:12.27 who have a indolent or a slowly

0:12:12.27 –> 0:12:13.57 progressing lymphoma that they

0:12:13.57 –> 0:12:15.796 may have had it for several years

0:12:15.796 –> 0:12:17.311 before the point of progression.

0:12:17.97 –> 0:12:20.427 The other question that I had was

0:12:20.427 –> 0:12:23.154 you talk about one of the

0:12:23.154 –> 0:12:25.249 things that's often a trigger to

0:12:25.25 –> 0:12:28.635 finding diagnosis of these

0:12:28.635 –> 0:12:31.343 conditions as being anemia.

0:12:31.35 –> 0:12:33.688 And for example, in multiple myeloma,

0:12:33.69 –> 0:12:35.03 where the plasma cells kind

0:12:35.03 –> 0:12:36.37 of crowd out other cells,

0:12:36.37 –> 0:12:40.699 and so the red blood cell count goes down.

0:12:40.7 –> 0:12:41.604 Two questions,

0:12:41.604 –> 0:12:44.11 first question is oftentimes anemia,

0:12:44.11 –> 0:12:46.41 especially in older people,

0:12:46.41 –> 0:12:50.096 can be associated with other things, right?

0:12:50.096 –> 0:12:52.48 GI bleeds,

0:12:52.48 –> 0:12:54.8 losing blood from other sources,

0:12:54.8 –> 0:12:56.162 iron deficiency anemia.

0:12:56.162 –> 0:12:59.34 How do you really tell that this

0:12:59.426 –> 0:13:02.091 is from something like multiple

0:13:02.091 –> 0:13:04.33 myeloma versus other things?

0:13:05.2 –> 0:13:07.57 Yeah, that's a really good question,

0:13:07.57 –> 0:13:08.89 and as you mentioned,

0:13:08.89 –> 0:13:10.87 people who are older and even

0:13:10.938 –> 0:13:12.518 younger individuals can have

0:13:12.518 –> 0:13:14.888 anemia for a variety of reasons.

0:13:14.89 –> 0:13:17.137 So typically we will work up and

0:13:17.137 –> 0:13:19.529 do a basic anemia evaluation,

0:13:19.53 –> 0:13:21.605 which includes looking at

0:13:21.605 –> 0:13:23.265 things like iron deficiency,

0:13:23.27 –> 0:13:24.842 other nutritional deficiencies,

0:13:24.842 –> 0:13:27.45 vitamin B12, and folic acid to

0:13:27.45 –> 0:13:30.335 make sure we exclude kind of

0:13:30.335 –> 0:13:32.6 the most common and treatable

0:13:32.6 –> 0:13:35.15 reasons for anemia first and then

0:13:35.15 –> 0:13:37.32 when we really don't have a source,

0:13:37.32 –> 0:13:39.36 then we kind of go on to kind of that

0:13:39.421 –> 0:13:41.923 next level of evaluation that does

0:13:41.923 –> 0:13:43.174 include hematological disorders.

0:13:43.97 –> 0:13:45.811 Well, we're gonna need to take a

0:13:45.811 –> 0:13:47.588 short break for a medical minute,

0:13:47.59 –> 0:13:49.767 but when we get back we'll learn

0:13:49.767 –> 0:13:52.471 more about how to diagnose and treat

0:13:52.471 –> 0:13:54.167 these hematologic conditions with

0:13:54.167 –> 0:13:56.88 my guest doctor Terri Parker.

0:13:56.89 –> 0:13:58.46 Funding for Yale Cancer Answers comes

0:13:58.46 –> 0:14:00.65 from AstraZeneca, dedicated to

0:14:00.65 –> 0:14:02.234 advancing options and providing

0:14:02.234 –> 0:14:04.67 hope for people living with cancer.

0:14:04.67 –> 0:14:05.828 More information at

0:14:07.96 –> 0:14:08.55 astrazeneca-us.com.

0:14:10.63 –> 0:14:12.25 There are many obstacles to

0:14:12.25 –> 0:14:13.546 face when quitting smoking.

0:14:13.55 –> 0:14:15.386 As smoking involves the potent drug

0:14:15.39 –> 0:14:17.655 Nicotine. Quitting smoking is a

0:14:17.655 –> 0:14:19.467 very important lifestyle change,

0:14:19.47 –> 0:14:20.949 especially for patients

0:14:20.949 –> 0:14:22.428 undergoing cancer treatment,

0:14:22.43 –> 0:14:24.644 as it's been shown to positively

0:14:24.644 –> 0:14:26.12 impact response to treatments and

0:14:26.187 –> 0:14:28.392 decrease the likelihood that patients

0:14:28.392 –> 0:14:30.156 will develop second malignancies

0:14:30.156 –> 0:14:32.268 and increase rates of survival.

0:14:32.27 –> 0:14:34.022 Tobacco treatment programs are

0:14:34.022 –> 0:14:36.212 currently being offered at federally

0:14:36.212 –> 0:14:37.492 designated Comprehensive cancer

0:14:37.492 –> 0:14:39.85 centers such as Yale Cancer Center

0:14:39.85 –> 0:14:42.09 and at Smilow Cancer Hospital.

0:14:42.09 –> 0:14:43.746 All treatment components are

0:14:43.746 –> 0:14:45.816 evidence based and patients are

0:14:45.816 –> 0:14:47.731 treated with FDA approved first

0:14:47.731 –> 0:14:49.526 line medications as well as

0:14:49.526 –> 0:14:51.545 smoking cessation counseling that

0:14:51.545 –> 0:14:53.669 stresses appropriate coping skills.

0:14:53.67 –> 0:14:55.938 More information is available at Yale

0:14:55.938 –> 0:14:57.983 Cancer Center dot org. You're listening

0:14:57.983 –> 0:14:59.839 to Connecticut Public Radio.

0:15:01.01 –> 0:15:03.11 Welcome back to Yale Cancer Answers.

0:15:03.11 –> 0:15:04.718 This is doctor Anees Chagpar

0:15:04.718 –> 0:15:06.52 and I'm joined tonight by

0:15:06.52 –> 0:15:08.185 my guest doctor Terri Parker.

0:15:08.19 –> 0:15:09.918 We're talking about hematogic

0:15:09.918 –> 0:15:11.058 malignancies,

0:15:11.058 –> 0:15:13.89 and particularly Doctor Parker's

0:15:13.89 –> 0:15:16.146 specialty of multiple myeloma.

0:15:16.146 –> 0:15:18.422 Now, right before the break,

0:15:18.422 –> 0:15:22.067 Terri, you were saying that a lot of people

0:15:22.067 –> 0:15:25.031 are diagnosed with multiple myeloma when

0:15:25.031 –> 0:15:28.579 anemia is found on a routine blood test.

0:15:28.58 –> 0:15:29.712 And that

0:15:29.712 –> 0:15:31.41 the first step is oftentimes to

0:15:31.476 –> 0:15:33.52 rule out the things that are common,

0:15:34.584 –> 0:15:37.776 rule out iron deficiency,

0:15:37.78 –> 0:15:40.558 anemia and B12, and folic acid.

0:15:40.56 –> 0:15:42.246 And all of those good things.

0:15:42.25 –> 0:15:43.082 But ultimately,

0:15:43.082 –> 0:15:46.41 if all of those things are ruled out,

0:15:46.41 –> 0:15:48.43 how then does the diagnosis

0:15:48.43 –> 0:15:50.915 proceed for people actually to be

0:15:50.915 –> 0:15:52.885 found to have multiple myeloma?

0:15:53.18 –> 0:15:55.336 And so the first step is actually

0:15:55.336 –> 0:15:57.139 additional blood in urine studies,

0:15:57.14 –> 0:16:00.316 so we will do a battery of tests,

0:16:00.32 –> 0:16:03.26 specifically tests that are called a serum

0:16:03.26 –> 0:16:04.026 protein electrophoresis,

0:16:04.026 –> 0:16:07.09 which is a blood test that looks to

0:16:07.159 –> 0:16:09.84 see if there's an increase in abnormal

0:16:09.84 –> 0:16:11.89 or monoclonal protein in the blood.

0:16:11.89 –> 0:16:14.098 We do a similar test in the urine.

0:16:14.1 –> 0:16:17.268 We will test other specific things

0:16:17.268 –> 0:16:19.38 called an immunofixation electrophoresis,

0:16:19.38 –> 0:16:20.442 quantitative immunoglobulins,

0:16:20.442 –> 0:16:23.097 and serum free light chains.

0:16:23.1 –> 0:16:25.652 And we put together all of these blood

0:16:25.652 –> 0:16:28.36 test and urine studies to determine if

0:16:28.36 –> 0:16:30.91 there is a monoclonal protein present

0:16:30.91 –> 0:16:33.549 which is a protein that's being secreted

0:16:33.55 –> 0:16:35.36 by an abnormal plasma cell.

0:16:35.84 –> 0:16:38.84 And so if you find that,

0:16:38.84 –> 0:16:41.576 then that means that people have

0:16:41.576 –> 0:16:43.6 multiple myeloma?

0:16:43.63 –> 0:16:45.4 Not necessarily, as I mentioned earlier,

0:16:45.4 –> 0:16:47.805 we can see a monoclonal

0:16:47.805 –> 0:16:49.248 protein precursor conditions,

0:16:49.25 –> 0:16:52.05 and so we take a look at the whole picture.

0:16:52.05 –> 0:16:54.066 So we look at the amount

0:16:54.066 –> 0:16:55.074 of monoclonal protein.

0:16:55.08 –> 0:16:58.068 If the patient has any other

0:16:58.068 –> 0:17:01.464 systemic symptoms, such as anemia,

0:17:01.464 –> 0:17:03.858 renal kidney insufficiency,

0:17:03.86 –> 0:17:06.308 or bone pain,

0:17:06.31 –> 0:17:08.396 this is more consistent with what

0:17:08.396 –> 0:17:10.936 we would call a monoclonal gammopathy

0:17:10.936 –> 0:17:12.517 of undetermined significance,

0:17:12.52 –> 0:17:14.398 that would be considered low risk

0:17:14.398 –> 0:17:16.678 that we would just have to observe,

0:17:16.68 –> 0:17:19.277 or if there were a significant amount

0:17:19.277 –> 0:17:21.646 of protein or other symptoms that

0:17:21.646 –> 0:17:24.397 would make us go one step further,

0:17:24.4 –> 0:17:26.395 which would be a bone marrow biopsy,

0:17:26.4 –> 0:17:29.022 which is the definitive way to

0:17:29.022 –> 0:17:30.77 diagnose multiple myeloma.

0:17:31.15 –> 0:17:33.887 And so when somebody has a bone

0:17:33.887 –> 0:17:36.469 marrow biopsy what exactly does that

0:17:36.469 –> 0:17:39.127 tell you?

0:17:39.13 –> 0:17:40.38 The bone marrow

0:17:40.39 –> 0:17:44.046 biopsy itself tells us what is the actual

0:17:44.046 –> 0:17:46.879 percentage of abnormal plasma cells.

0:17:46.88 –> 0:17:49.13 So we're looking for these abnormal

0:17:49.13 –> 0:17:50.63 or monoclonal plasma cells.

0:17:50.63 –> 0:17:53.238 So kind of one type of plasma cell,

0:17:53.24 –> 0:17:55.544 and they need to be over

0:17:55.544 –> 0:17:57.078 10% in the bone marrow.

0:17:57.078 –> 0:17:58.8 So that's what we're looking for,

0:17:58.8 –> 0:18:01.376 and that is diagnostic of multiple myeloma.

0:18:01.63 –> 0:18:03.646 And then if you find that,

0:18:03.65 –> 0:18:05.49 what's the next step?

0:18:05.49 –> 0:18:07.194 Is there staging or do you

0:18:07.194 –> 0:18:08.33 go straight to treatment?

0:18:08.33 –> 0:18:10.2 How does that work?

0:18:10.23 –> 0:18:13.15 Then we have to make another determination

0:18:13.15 –> 0:18:16.028 so we have what we call smoldering

0:18:16.03 –> 0:18:18.57 Multiple myeloma, which are symptomatic

0:18:22.774 –> 0:18:25.334 so individuals who have smoldering multiple

0:18:25.334 –> 0:18:28.61 myeloma meet that strict cutoff of 10%

0:18:28.61 –> 0:18:31.286 involvement of bone marrow but

0:18:31.286 –> 0:18:33.07 are really otherwise asymptomatic,

0:18:33.07 –> 0:18:36.12 meaning they don't have anemia,

0:18:36.12 –> 0:18:38.61 they have preserved kidney function,

0:18:38.61 –> 0:18:41.73 their calcium levels are within normal range,

0:18:41.73 –> 0:18:44.709 they don't have any bone pains or what we

0:18:44.709 –> 0:18:47.844 call lytic lesions or holes in their bones,

0:18:47.85 –> 0:18:49.762 and so these people we would really observe.

0:18:49.762 –> 0:18:52.184 But they have a higher risk of

0:18:52.184 –> 0:18:53.886 progression to symptomatic multiple

0:18:53.886 –> 0:18:56.046 myeloma that would need treatment.

0:18:56.22 –> 0:18:57.36 Wait a minute, wait a minute.

0:18:57.36 –> 0:19:00.198 So how do these people with

0:19:00.198 –> 0:19:01.617 smoldering multiple myeloma

0:19:01.617 –> 0:19:04.117 present if they don't have anemia?

0:19:04.12 –> 0:19:05.92 They don't have any

0:19:05.92 –> 0:19:07.27 abnormal kidney function.

0:19:07.27 –> 0:19:09.42 How do you see them?

0:19:09.87 –> 0:19:13.038 Yeah, so a lot of times these individuals

0:19:13.038 –> 0:19:15.692 are referred because they had a blood

0:19:15.692 –> 0:19:18.874 test done and that was what we call

0:19:18.874 –> 0:19:20.736 a comprehensive metabolic panel that

0:19:20.736 –> 0:19:22.932 included a total protein and they

0:19:22.932 –> 0:19:25.436 were noted to have a total protein

0:19:25.436 –> 0:19:27.796 that was elevated and so their primary

0:19:27.796 –> 0:19:29.8 care physician picked up that the

0:19:29.865 –> 0:19:32.161 total protein was high and then sent

0:19:32.161 –> 0:19:34.301 them for further evaluation for an

0:19:34.301 –> 0:19:36.485 issue such as a monoclonal protein.

0:19:36.49 –> 0:19:38.186 So that's one way we often will see

0:19:38.19 –> 0:19:43.428 these individuals, another is that monoclonal

0:19:43.43 –> 0:19:45.585 gammopathy's and multiple myeloma can

0:19:45.585 –> 0:19:48.36 be associated with other medical problems,

0:19:48.36 –> 0:19:51.99 for example as serum protein electrophoresis,

0:19:51.99 –> 0:19:54.406 which is the blood tests that we do

0:19:54.406 –> 0:19:57.094 as part of the evaluation for myeloma

0:19:57.094 –> 0:19:59.709 is often done an evaluation for

0:19:59.709 –> 0:20:01.849 secondary causes for osteoporosis,

0:20:01.85 –> 0:20:04.778 so sometimes patients will have it done as

0:20:04.778 –> 0:20:08.276 a work up if they are have osteoporosis at

0:20:08.28 –> 0:20:11.016 a younger age.

0:20:11.02 –> 0:20:13.08 We also can see neuropathy,

0:20:13.08 –> 0:20:15.628 so that's kind of numbness and tingling

0:20:15.628 –> 0:20:17.5 in the extremities in patients who

17

0:20:17.5 –> 0:20:19.648 have come up with these as well and

0:20:19.648 –> 0:20:21.244 so sometimes a neurologist as part

0:20:21.244 –> 0:20:23.57 of a work up for other reasons for a

0:20:23.57 –> 0:20:25.566 patient to have a peripheral neuropathy

0:20:25.566 –> 0:20:27.67 will send these studies,

0:20:27.67 –> 0:20:29.511 so that's how a lot of these

0:20:29.511 –> 0:20:30.52 patients present to us

0:20:30.52 –> 0:20:34.21 if they don't have any other organ damage.

0:20:34.36 –> 0:20:37.816 So these people with smoldering

0:20:37.816 –> 0:20:39.544 multiple myeloma

0:20:39.55 –> 0:20:41.59 still could have symptoms, right?

0:20:41.59 –> 0:20:43.315 They could still have this

0:20:43.315 –> 0:20:44.005 peripheral neuropathy,

0:20:44.01 –> 0:20:46.788 or they could still have osteoporosis,

0:20:46.79 –> 0:20:48.96 but they just can't have the other

0:20:48.96 –> 0:20:51.015 things that you mentioned, right?

0:20:51.015 –> 0:20:53.19 The anemia, the kidney function,

0:20:53.19 –> 0:20:55.068 the lytic lesions of the bone?

0:20:55.07 –> 0:20:56.22 Do I have that right?

0:20:56.22 –> 0:20:57.04 Yeah, that's

0:20:57.05 –> 0:20:58.628 right. So they can't really have

0:20:58.628 –> 0:21:00.629 what we call this end organ damage.

0:21:00.63 –> 0:21:03.225 You know our classification between

0:21:03.225 –> 0:21:05.301 smoldering myeloma and myeloma

0:21:05.301 –> 0:21:07.61 has changed over the years,

0:21:07.61 –> 0:21:10.508 and we now also have a set of criteria

0:21:10.51 –> 0:21:13.062 that I call my myeloma defining

0:21:13.062 –> 0:21:15.236 events which don't have to be organ

0:21:15.236 –> 0:21:17.944 damage but just a kind of a significant

0:21:17.944 –> 0:21:20.533 amount of disease burden, and we will

0:21:20.533 –> 0:21:22.238 treat those individuals as myeloma,

0:21:22.24 –> 0:21:24.607 even if they don't have any of the other

0:21:24.607 –> 0:21:26.457 classic symptoms you just mentioned.

0:21:26.46 –> 0:21:28.945 So really, we're looking for a significant

0:21:28.945 –> 0:21:30.769 involvement of the bone marrow,

0:21:30.77 –> 0:21:32.989 and we classify that as over 60%

0:21:32.99 –> 0:21:35.55 involvement or a very significant

0:21:35.55 –> 0:21:38.11 serum free light chain burden.

0:21:38.11 –> 0:21:40.558 And for those individuals we will treat them

0:21:40.56 –> 0:21:41.571 as multiple myeloma,

0:21:41.571 –> 0:21:43.93 even if they don't have those classic

0:21:43.989 –> 0:21:45.987 end organ damage that we mentioned.

0:21:46.49 –> 0:21:49.388 What does treatment entail?

0:21:49.39 –> 0:21:51.03 Yeah, so treatment for a

0:21:51.04 –> 0:21:54.024 newly diagnosed patient is

0:21:54.024 –> 0:21:57.008 a combination of drugs.

0:21:57.01 –> 0:21:57.798 Typically what you would

0:21:57.8 –> 0:21:58.664 consider chemotherapy.

0:21:58.664 –> 0:22:02.12 So we often refer to it as frontline

0:22:02.195 –> 0:22:04.1 or induction chemotherapy,

0:22:04.1 –> 0:22:07.775 as we're trying to induce a response.

0:22:07.78 –> 0:22:09.328 The treatment typically consists

0:22:09.328 –> 0:22:11.263 of a combination of three

0:22:11.27 –> 0:22:13.556 or four drugs and the determination

0:22:13.556 –> 0:22:16.234 of how many drugs and which drugs

0:22:16.234 –> 0:22:18.747 are often based on a few different

0:22:18.823 –> 0:22:21.468 patient specific factors in addition

0:22:21.468 –> 0:22:23.584 to disease specific factors.

0:22:23.59 –> 0:22:25.32 And so when we talk

0:22:25.32 –> 0:22:26.434 about patient specific factors,

0:22:26.434 –> 0:22:29.49 we really look at a patient and ask

0:22:30.201 –> 0:22:32.296 the question, how well do we think

19

0:22:32.296 –> 0:22:34.594 this individual could tolerate the treatment?

0:22:34.6 –> 0:22:38.128 What is their fitness?

0:22:38.13 –> 0:22:40.279 We don't necessarily look at

0:22:40.279 –> 0:22:42.619 age but kind of the overall person.

0:22:42.62 –> 0:22:44.636 What are their other medical problems,

0:22:44.64 –> 0:22:45.98 their comorbidities?

0:22:45.98 –> 0:22:49.33 What medications are they taking?

0:22:49.902 –> 0:22:51.332 Do they have heart dysfunction

0:22:51.332 –> 0:22:52.4 at baseline?

0:22:52.4 –> 0:22:54.255 Do they already have a neuropathy

0:22:54.255 –> 0:22:55.368 that's pretty severe?

0:22:55.37 –> 0:22:58.906 And then we look at the myeloma itself,

0:22:58.91 –> 0:23:00.69 meaning for every bone marrow

0:23:00.69 –> 0:23:02.114 biopsy that we do,

0:23:02.12 –> 0:23:04.535 we also send a study called cytogenetics

0:23:04.54 –> 0:23:07.196 and that is the study of

0:23:07.196 –> 0:23:09.01 chromosomes within that plasma cell.

0:23:09.01 –> 0:23:10.648 So we're really looking to see

0:23:10.648 –> 0:23:12.7 if there is any rearrangements.

0:23:12.7 –> 0:23:14.13 Additions, deletions,

0:23:14.13 –> 0:23:17.705 breaks and by utilizing these

0:23:17.705 –> 0:23:19.135 cytogenetic testing,

0:23:19.14 –> 0:23:21.498 we determine if someone is considered

0:23:21.498 –> 0:23:24.366 high risk or standard risk and that

0:23:24.366 –> 0:23:26.406 influences which treatment we give.

0:23:27.16 –> 0:23:29.278 And so what is the difference

0:23:29.278 –> 0:23:31.795 between a high risk and a standard

0:23:31.795 –> 0:23:33.72 risk patient in terms of treatment?

0:23:33.72 –> 0:23:35.448 I mean is it more drugs?

0:23:35.45 –> 0:23:37.518 Is it more duration?

0:23:37.518 –> 0:23:39.586 Is it more toxic?

0:23:39.59 –> 0:23:41.21 Yeah, so it's not necessarily

0:23:41.22 –> 0:23:42.585 more drugs. Fortunately,

0:23:42.585 –> 0:23:45.77 in multiple myeloma most of our drugs

0:23:45.85 –> 0:23:48.566 are very targeted to the plasma cell,

0:23:48.57 –> 0:23:50.677 but it may just be a

0:23:50.677 –> 0:23:52.02 different type of drug.

0:23:52.02 –> 0:23:55.464 So it may consist of four

0:23:55.464 –> 0:23:58.479 drugs versus a 3 drug regimen.

0:23:58.48 –> 0:24:00.286 You know there's still a lot

0:24:00.286 –> 0:24:02.092 of research being done to see

0:24:02.092 –> 0:24:03.718 what is truly the best regimen

0:24:03.718 –> 0:24:04.914 for high risk individuals,

0:24:04.914 –> 0:24:07.038 and there's a lot of different

0:24:07.038 –> 0:24:08.1 opinions out there,

0:24:08.1 –> 0:24:09.372 but it's usually going to be

0:24:09.372 –> 0:24:10.836 a four or three drug regimen

0:24:10.836 –> 0:24:11.956 with potentially one difference

0:24:11.956 –> 0:24:13.71 in one of the medications.

0:24:15.06 –> 0:24:18.388 And as we think about

0:24:18.388 –> 0:24:21.02 multiple myeloma and how you treat it,

0:24:21.02 –> 0:24:24.058 it seems to me that

0:24:24.06 –> 0:24:27.084 part of this has to do with how advanced

0:24:27.084 –> 0:24:30.122 the myeloma is in terms of how much of

0:24:30.122 –> 0:24:32.997 the bone marrow is actually involved,

0:24:33 –> 0:24:35.21 whether there's end organ damage,

0:24:35.21 –> 0:24:38.157 health, how fit the patient is, and so on.

0:24:38.157 –> 0:24:41.851 All of which makes me wonder about

0:24:41.851 –> 0:24:45.59 how important it is to get to a doctor

0:24:45.59 –> 0:24:47.249 as soon as you have those symptoms,

0:24:47.25 –> 0:24:50.764 how important it is to come to

0:24:50.764 –> 0:24:53.074 get diagnosed early versus late?

0:24:53.08 –> 0:24:54.455 I mean certainly that's something

0:24:54.455 –> 0:24:56.678 we talk about in a lot of cancers,

0:24:56.68 –> 0:24:59.263 but it sounds like in multiple myeloma

0:24:59.263 –> 0:25:01.829 there's really no real screening tests.

0:25:01.83 –> 0:25:04.29 No recommendations for annual blood work,

0:25:04.29 –> 0:25:04.956 for example.

0:25:04.956 –> 0:25:07.287 So does that really play a role?

0:25:07.29 –> 0:25:09.194 Or does it not matter as much?

0:25:10.43 –> 0:25:12.93 Yeah, so in multiple myeloma

0:25:12.93 –> 0:25:15.051 as in a lot of the hematological

0:25:15.051 –> 0:25:15.96 malignancies

0:25:15.96 –> 0:25:20.064 we don't stage it as we do our

0:25:22.186 –> 0:25:24.61 solid tumors and

0:25:24.681 –> 0:25:27.106 we don't talk about metastasis and

0:25:27.106 –> 0:25:30.228 so really the amount of bone marrow

0:25:30.23 –> 0:25:33.156 involvement doesn't play a role in what

0:25:33.156 –> 0:25:36.548 we decide to do for upfront treatments.

0:25:36.55 –> 0:25:38.236 So our staging is really based

0:25:38.236 –> 0:25:40.296 on blood work and we

0:25:40.296 –> 0:25:42.048 will often treat someone who is

0:25:42.05 –> 0:25:44.864 say a stage one versus stage three,

0:25:44.87 –> 0:25:47.066 very similarly because we have very

0:25:47.066 –> 0:25:49.799 effective drugs in the first line setting.

0:25:49.8 –> 0:25:51.705 But obviously we would want

0:25:51.705 –> 0:25:53.229 to seek medical attention

0:25:53.23 –> 0:25:54.89 if you had any symptoms,

0:25:54.89 –> 0:25:57.888 because say you present with kidney

0:25:57.888 –> 0:25:59.64 dysfunction, renal failure that

0:25:59.64 –> 0:26:02.309 does limit some of the treatments

0:26:02.309 –> 0:26:04.745 that we could give up front.

0:26:04.75 –> 0:26:07.225 And obviously if you start to have bone pain,

0:26:07.23 –> 0:26:09.126 you want to seek medical attention

0:26:09.126 –> 0:26:11.044 because you wouldn't want to end

0:26:11.044 –> 0:26:12.534 up with a pathological fracture.

0:26:12.54 –> 0:26:14.454 So we do encourage people if

0:26:14.454 –> 0:26:16.621 they have any symptoms to really

0:26:16.621 –> 0:26:17.86 seek medical attention.

0:26:19.84 –> 0:26:21.81 And the sooner you are diagnosed,

0:26:21.81 –> 0:26:23.435 the potentially more treatment options

0:26:23.435 –> 0:26:25.689 you have and the better shape you

0:26:25.689 –> 0:26:27.405 will be in to tolerate treatment.

0:26:28.4 –> 0:26:30.234 The other thing that you mentioned,

0:26:30.24 –> 0:26:31.758 which I think is something that

0:26:31.758 –> 0:26:33.339 it's important that we pick up on,

0:26:33.34 –> 0:26:34.936 is that you said that the

0:26:34.936 –> 0:26:36.6 treatments now are very effective.

0:26:36.6 –> 0:26:38.77 So tell us a little bit about

0:26:38.77 –> 0:26:40.53 prognosis of patients who are

0:26:40.53 –> 0:26:42.07 treated with multiple myeloma.

0:26:43.17 –> 0:26:46.452 Fortunately we have keep

0:26:46.452 –> 0:26:49.238 moving our overall survival and

0:26:49.238 –> 0:26:51.738 the percent surviving at five

0:26:51.738 –> 0:26:54.455 years each year thanks to the

0:26:54.455 –> 0:26:56.227 development of newer treatments.

0:26:56.23 –> 0:26:58.84 And so it used to be,

0:26:58.84 –> 0:27:00.751 several years ago, say in 2005,

0:27:00.751 –> 0:27:02.653 if we were giving this talk,

0:27:02.66 –> 0:27:04.556 we would talk about an overall

0:27:04.556 –> 0:27:06.846 survival of two to five years

0:27:11.36 –> 0:27:13.19 and so more recently we say

0:27:13.19 –> 0:27:15.334 five to 10 years and we're now

0:27:15.334 –> 0:27:16.958 talking about potentially

0:27:16.958 –> 0:27:19.345 moving that to 10 to 15 years.

0:27:19.35 –> 0:27:21.247 If you look at the most recent

0:27:21.247 –> 0:27:23.383 data in the United States regarding

0:27:23.383 –> 0:27:25.478 the percentage of patients that

0:27:25.478 –> 0:27:27.289 are alive at five years,

0:27:27.29 –> 0:27:29.61 it's about just over 55%.

0:27:29.61 –> 0:27:30.819 So, very encouraging.

0:27:31.64 –> 0:27:33.579 That's really great, and I guess

0:27:33.579 –> 0:27:35.578 that leads me to my next question,

0:27:35.58 –> 0:27:37.65 which is what are the exciting

0:27:37.65 –> 0:27:39.853 advances that are going on in

0:27:39.853 –> 0:27:41.728 terms of multiple myeloma research.

0:27:41.73 –> 0:27:44.619 How are you and others trying to move

0:27:44.619 –> 0:27:47.73 the ball even further down the field?

0:27:47.74 –> 0:27:49.152 That's a great question.

0:27:49.152 –> 0:27:51.27 There is so much exciting research

0:27:51.335 –> 0:27:53.302 being done here at Yale and within

0:27:53.302 –> 0:27:55.229 the field of multiple myeloma.

0:27:55.23 –> 0:27:57.316 And really at all stages.

0:27:58.856 –> 0:28:01.89 Right now we often will refer to multiple myeloma

0:28:01.89 –> 0:28:04.962 as a cancer that is treatable

0:28:04.962 –> 0:28:06.498 but not curable.

0:28:06.5 –> 0:28:08.36 So we're currently looking at

0:28:08.36 –> 0:28:10.22 ways to improve that frontline

0:28:10.286 –> 0:28:11.732 therapy maintenance therapy,

0:28:11.732 –> 0:28:14.768 in individuals who have relapsed refractory.

0:28:15.673 –> 0:28:17.178 The most exciting things are

0:28:17.178 –> 0:28:19.028 probably the development of CAR T

0:28:19.03 –> 0:28:20.94 which recently gained FDA approval

0:28:20.94 –> 0:28:23.368 and in addition to looking at the

0:28:23.368 –> 0:28:25.152 biospecific antibodies which are

24

0:28:25.152 –> 0:28:26.936 currently in clinical trial.

0:28:27.68 –> 0:28:29.588 Doctor Terri Parker is an assistant

0:28:29.6 –> 0:28:31.74 professor of medicine and hematology

0:28:31.75 –> 0:28:34.01 at the Yale School of Medicine. If

0:28:34.02 –> 0:28:35.945 you have questions, the address is

0:28:35.945 –> 0:28:38.6 cancer answers at yale dot edu

0:28:38.6 –> 0:28:40.56 and past editions of the program are

0:28:40.56 –> 0:28:42.63 available in audio and written form at

0:28:43.86 –> 0:28:44.123 yalecancercenter.org.

0:28:44.123 –> 0:28:46.227 We hope you'll join us next week to

0:28:46.227 –> 0:28:47.804 learn more about the fight against

0:28:47.804 –> 0:28:49.586 cancer here on Connecticut Public

0:28:49.586 –> 0:28:51.639 radio funding for Yale Cancer

0:28:51.64 –> 0:28:53.748 Answers is provided by Smilow Cancer

0:28:53.76 –> 0:28:55.468 Hospital and AstraZeneca.