

Mayo Clinic Q & A – Dr. Jeremy Jones - Colorectal cancer in ...

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SPEAKERS

Dr. Halena Gazelka, Dr. Jeremy Jones

- D** Dr. Halena Gazelka 00:00

Coming up on Mayo Clinic Q&A, colorectal cancer is the third most common cancer in both men and women. While it typically affects older adults, a growing number of young adults is being diagnosed with the disease.
- D** Dr. Jeremy Jones 00:14

We've seen about a 50% relative increase in the percent of patients under the age of 50, who have been diagnosed with colon cancer.
- D** Dr. Halena Gazelka 00:21

The key to preventing Colorectal cancer is regular screening, which is recommended to begin at age 45. Early screening can find precancerous polyps that can be removed before the cancer develops. One of the fundamental problems that we run into with early onset colon cancer is that these patients are not captured early. We have to continue to get the word out that these cancers are becoming more commonplace in younger patients. Welcome, everyone to Mayo Clinic Q&A. I'm your host, Dr. Halena Gazelka. Every March, Mayo Clinic joins the effort to raise awareness of the fourth most common cancer in the United States, colorectal cancer. While colonoscopy screenings have reduced colorectal cancer rates in older adults, one area of concern is the increase in colorectal cases amongst individuals younger than the age of 50. Joining us to discuss colorectal cancer in younger people is Dr. Jeremy Jones, a medical oncologist at Mayo Clinic in Florida. Thanks for being here today, Jeremy,
- D** Dr. Jeremy Jones 01:22

Thank you so much for having me, Halena. I'm ecstatic to be here again to talk about, I think, a disease that unfortunately is becoming far more common, something that we definitely need to concentrate our attention.

D Dr. Halena Gazelka 01:35

Well, I'm really excited to talk to you about it too, because I hadn't realized this was an issue. And so, I'm curious. But before we start with that, Jeremy, would you tell us how do we define colorectal cancer?

D Dr. Jeremy Jones 01:47

Yeah, so, you know, colon cancer, or colorectal cancer, is a cancer arising within the colon or the rectum. Specifically, we're talking about the gland forming tumors or adenocarcinomas that arise throughout the colon, starting from the cecum, sort of the beginning of the colon, all the way through to the rectum. The anus is actually a different disease altogether. So, we're predominantly talking about the colon and the rectum.

D Dr. Halena Gazelka 02:15

What causes colorectal cancer?

D Dr. Jeremy Jones 02:18

That is very much a loaded question. The answer is, which is true for most cancers, is that we don't really know for sure what causes one patient's individual cancer. We know from a population when we look at sort of populations, the classic example is lung cancer in patients who smoke cigarettes. And we know that if you smoke cigarettes, your chances of getting lung cancer are quite a bit higher than if you don't smoke cigarettes. But, I think, I've had many patients, and certainly I think all of us know somebody who smoked cigarettes their entire life, and they die at the age of 100 after getting hit by a car, or something like that. And so, you know, the difficulty here is that for any individual patient, a risk factor is just that. It's a risk factor. It's not a certainty that you will develop a cancer. And so, for colon cancer there's a number of different potential risk factors. So, the kind that are very, very strongly associated are, there's syndromes that are inherited. Fortunately, they're relatively uncommon. We do see them more frequently in the younger age groups. We'll talk a little bit about that. But fortunately, they're relatively uncommon. And those are very high-risk. So, anywhere between around 30 to 100% chance of developing colon cancer in those patients if you carry that specific mutation. Outside of that there's sort of the things that you kind of grew up knowing that, you know, these are bad for you. So, you know, if you eat a lot of processed meats, that's probably not a good thing from a population standpoint. If you sort of have a lot of bad habits, you drink a lot of alcohol, you smoke cigarettes, those sorts of things do increase the risk of developing colon cancer as a population. From an individual patient perspective, you know, I've had patients come to me and say, Well you know, I've never eaten a steak in my life. I love eating steak, but I stopped eating it 10 years ago because I knew that was going to, you know,

cause me to have colon cancer. I think that's probably the wrong message. So, a lot of these things come down to moderation. As you know, you've been told in the past, moderation is very important. And it turns out that it's important as it relates to preventing colon cancer.

D Dr. Halena Gazelka 04:24

Have you seen younger patients in your practice, Jeremy?

D Dr. Jeremy Jones 04:28

Absolutely. Unfortunately, it's becoming far more common. So, the estimates are that we've seen about a 50% relative increase. So, overall it's still, if you look at from again, a population standpoint, the vast majority of patients who get colon cancer are going to be older, meaning above the age of 50. As I get older, I think that above the age of 50 doesn't mean older, but nonetheless.

D Dr. Halena Gazelka 04:52

Right.

D Dr. Jeremy Jones 04:53

But they're not the young patient. So, as a whole those are still going to make up the preponderance, but what we've seen is those patients actually the amount of those patients has declined significantly over time as we've gotten better at screening and colonoscopy. But unfortunately, we've seen a trend in the opposite direction for patients under the age of 50. And so, we've seen about a 50% relative increase in the percent of patients under the age of 50 who have been diagnosed with colon cancer. You know, being at sort of a tertiary referral center, I think that I see probably 50% of my clinic is under the age of 50. So, it's a dramatic increase. Now, obviously, I don't think 50% of people who have colon cancer are being seen in my clinic. But just being that we have a referral bias and things like that. I see, unfortunately, a ton of patients who are under the age of 50 diagnosed with colon cancer.

D Dr. Halena Gazelka 05:47

What do you think is the reason behind the development of more colon cancers in younger individuals?

D Dr. Jeremy Jones 05:53

So, it's another million-dollar question. And I think that it's very difficult to say. You know, the easy sort of estimate is, the easy answer is change in diet. You know, the westernized diet throughout the world has increased. I will tell you that probably is a simplistic explanation. There's probably a number of different things going on. We talked about these syndromes that

happen in patients that generally you would tend to see them more commonly in younger people. We don't think that the increase is related to increased risk of these syndromic type episodes. So, for instance Lynch syndrome or FAP, familial adenomatous polyposis. We don't think that it's related to that. But it's possible that there's other what we call poly genetic risk factors. So, not one mutation that causes it, perhaps a interplay of a bunch of mutations. But that still doesn't really answer the question as to why we're seeing more of that now than what we saw in the past. So, I certainly think that dietary exposure might be a possibility, at least adding some. But again, I think that it's unlikely that it answers the whole question. There are certain publications that have looked at body mass index, or BMI, increasing the risk if you had a higher BMI, having an increased risk for early onset colon cancer. But there's others that have shown that hasn't been true. I can tell you in my clinic, I see a lot of patients who are not overweight, obese at all, and unfortunately developed colon cancer. There are people who are looking at the microbiome, or essentially the normal bacteria in your gut and how that interplay effects with cancer. Now, as you can imagine, that's a very difficult thing to study, because if we knew you had cancer before, we wouldn't just sit around and wait. Right. And so, it's difficult to have these pre samples. But there's a lot of research that is going into that. And I think that perhaps that could be accounting for it. But ultimately, we don't really know exactly why we're seeing these increased incidents. And I will tell you that, you know, there's a lot of smart people much smarter than me that are researching this. And anytime we've been looking at something for four or five years, and we really haven't been able to figure it out, what that tells me is that it's probably a number of different things, as opposed to just one sort of, oh, there was this, and that happened. And so, this whole population is exposed, it's likely that it's probably genetic, plus, you know, microbiome, plus all of these other things combined that are unfortunately leading to this increase that we see.

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Dr. Halena Gazelka 08:30

So, do you treat a younger individual with colorectal cancer differently than you would if they were older?

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Dr. Jeremy Jones 08:37

By and large we don't treat them completely different in that the chemotherapy that we would use traditionally for most patients is similar, based on sort of how, you know, irrespective of whether you're older or younger. Now, with that being said, anytime we're talking about chemotherapy, one of the biggest things that goes into it is sort of how is somebody's functional status before they have cancer. So, you can imagine that if somebody is 85, and you know, they're a little bit more weak, then our arsenal is not really, you know, we're not able to give sort of the strongest drugs that we have. Whereas in general, those patients that are younger, you know, we're able to perhaps be a little bit more aggressive. But that's not always the case. We do try our best to be as aggressive as possible, obviously if that's what the patient wants. But I think that we do treat them all similarly. Unfortunately, we don't have a silver bullet for early onset colon cancer we can treat this way, whereas if you have standard onset colon cancer we treat a different way. We have not gotten to that point yet.

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Dr. Halena Gazelka 09:41

What about survival rates, Jeremy? Is it a poor prognosis to have your cancer when you're

younger or when you're older?

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Dr. Jeremy Jones 09:49

So again, the data is a little bit mixed here. So, I think we have to look at it in a few different areas. So, if you look at, you know, all of colon cancer the median age at diagnosis is about 70. So, by the time you become 70-years-old, you have other competing interests, right. So, your chances of having a heart attack at 70 is quite a bit more than if you're 30. Your chances of having some sort of other problem, and so when you look at five-year survival times, it's a little bit hard to just say we try to do it, we try to say, Okay, this is cancer specific survival, but these things become intertwined. And so, it's very difficult to pull out the different layers. With that being said, with those caveats being said, we do think that patients with early onset colon cancer, they probably do a little bit better, but not really a lot better than we would want. So, if you look at localized, so catching the cancer early, which is probably the most important part as it pertains to colon cancer and survival. On average, if you have early onset, we expected the five-year survival rates are on the order of about 95%. Whereas if you're over the age of 50, we expect it's about 91-92%. So, still pretty good, you know, so 95 versus 92%, those are not bad odds. When you get to localized disease, excuse me, locally advanced disease, it drops a fair amount. So, it's about 75 versus 70. And then when you get to metastatic disease, so disease that has spread outside of the colon to a different organ, that's when it becomes a fair amount worse. So, it goes to about 25%, five-year survival for those who are early onset, versus about 10 to 15% for those who are late onset. And so, one of the fundamental problems that we run into with early onset colon cancer is that these patients are not captured early. And so, if you were as a whole, over the age of 50, you're far more likely to have been diagnosed at an asymptomatic stage, you had a colonoscopy because you turned 50. And so, you got your scan, assuming you got diagnosed with colon cancer, it was removed, and it was a stage one or stage two. As it turns out, that is far more important in terms of prognosis and survival than anything else we end up doing for you. Whereas if you're under the age of 50, at least 50 traditionally, we have not captured these patients for screening. And worse, we've sort of ignored them. I can tell you, unfortunately, I see patients, probably at least once a week, it is becoming better now. But where they say, you know, I had blood coming in my stool, I told my doctor and they said, you know, you're too young to have cancer, it's probably hemorrhoids. Or I had unexplained abdominal pain or unexplained weight loss, and I was told that I was too young to have colon cancer. So unfortunately, we have to continue to get the word out that these cancers are becoming more commonplace in younger patients. So, we cannot as a medical community ignore the signs and symptoms that otherwise, if a 70-year-old came to me and said they had blood in their stool, and they were having weight loss, most every physician would say that's a concerning sign. Whereas in a younger patient, I think that these signs are being ignored, or at least not given enough evidence for this.

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Dr. Halena Gazelka 13:00

Well, Jeremy, that begs an obvious question, then, shouldn't we be changing the screening guidelines? I know that I was told to start screening at the age of 50, not having risk factors. But what are we doing about that topic? So, we have. To a certain extent, we have started to do that. So, the national guidelines were changed last year to change the risk for screening for average risk individuals from 50, down to 45 years of age. And so, that will likely help. Now when you're talking about a population screening effort, the problem is that you're screening

patients who are not patients, they're individuals. And most likely they will not have cancer. And so, when you think about this, you have to think about it from a what is the risk that I have an asymptomatic patient, and I put them through a colonoscopy, and maybe they have a side-effect from the colonoscopy. Now, fortunately that's very, very rare. But, we have to think about these sorts of things when we come into developing that. And so, when the risk of cancer becomes lower for the population, it becomes more and more difficult to do that. Now with that being said, I'm biased because I see these patients in clinic and I think that 45 is probably not enough, I think that perhaps we should go lower. And perhaps maybe in the future we can integrate some of the newer technologies that we have, such as Cologuard, or these other blood-based screening tests to hopefully enrich that population of patients with a relatively mild test so that we can enrich the population and hopefully not miss these patients who are 30, 40, sometimes. I think it will take probably a multi-pronged effort. I don't know that we will be able to increase colonoscopic screening to everyone who's going to be at risk in the future, just because that population will go down and down and down. And then you get into a point where you're sort of screening too much. Now for the record. I think that 45 is a good move. I'd like to see it at maybe 40. But, I understand that there's difficulties as I outlined in sort of both sides. And so, my goal for the future is that we can harness some of these other technologies that we have that for less invasive tests to essentially enrich the population. You have a positive screening test, a blood-based test, or a stool-based test. It shows us that your risk of having a cancer is quite a bit higher, then we go on and do the colonoscopy. So, I think that in the future, that's likely what we'll do. That's what we'll need to do to be able to catch these patients earlier. Jeremy, you were, I think, when you said age 45, referring to people who didn't necessarily have significant risk factors. What about individuals who do have significant risk factors? When do you start screening them?

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Dr. Jeremy Jones 15:43

So, it depends on the risk factor at hand. So, if you have one of the more common risk factors that we hear of, is somebody who their parents had developed a colon cancer, let's say at the age of 50. Generally, we would say start colonoscopy screening about 10 years before that, with the idea that we will catch that window of change. So, if your, let's say Father developed colon cancer at 50, we would say, Okay, we'll start colonoscopy screening at about age 40. Now, there's a little bit of wiggle room there. The other thing that comes into play is when we look at, if you have a syndromic type mutation, so if you knew from your family members that they had FAP, which is a very high-risk, then we might start screening at the age of 10, or 20, or, you know, 15. So, whereas in Lynch syndrome we might change that to starting, if you know, nobody in the family has had cancer until age 35, then maybe we start at 30. So, there's a little bit more wiggle room. And we certainly do try to target those patients, you know, essentially enriching the population of patients who are getting colonoscopic screening. But my hope is that by, you know, unfortunately, when we do that, we have to identify that they're high risk. And if, as I told you before, we don't really know what makes somebody high risk for developing early onset colon cancer. And so, I hope that in the future we will do a better job at expanding to sort of understand who those patients are. But one of the ways we might get there is by using these novel screening technologies and sort of casting more of a wide net, and then pulling in and based on those, then we can sort of escalate therapy. But that's all conjecture at this point, at least.

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Dr. Halena Gazelka 17:29

Jeremy, does Mayo Clinic have any ongoing research related to colorectal cancer in younger individuals?

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Dr. Jeremy Jones 17:36

We have a tremendous amount of research looking at all of these avenues. So, looking at early diagnosis, so we have a program predominantly run in Rochester, but in other areas where Dr. Boardman has been looking at for years now has been collecting samples of tissue from patients who end up having colon cancer, but then also the surrounding tissue. And as it turns out in cancer sometimes you see an abnormality, but you don't necessarily know it's an abnormality, because what's normal, right? So, when you're looking in the colon, sometimes having a normal tissue next to it and being able to compare what's the difference between the two, particularly when you look at microbiome, or you look at other areas, maybe mutational landscape, well, you might have a mutation that is a normal, but if we don't see it in the normal cells next to it, then then we say, Oh, actually, you know what, this is abnormal. And so yeah, there's a lot of different research pathways that are looking into this. We're looking at trying to grow these patient's cells, what we call spheroids, that are essentially out of body. We take the tissue out, and then we grow it in a culture medium so that we can actually recapitulate the tumor itself. That allows us to be able to do these things outside of the human body. So that, you know, for testing let's say a drug that we don't necessarily know is, you know, particularly helpful number one, or particularly toxic, we can test it in these things, and use that as a massive drug profile. So, if you have parallel testing, if you're testing a bunch of different things. So, there's a number of different really exciting things going on in terms of looking at this. But fundamentally, I think that the biggest leap, or the biggest change that we will make in patient's lives, is being able to try and diagnose them earlier. And in order to do that, we really have to get to the bottom of number one risk factors, and then how, what can we do to sort of in those patients who don't have the traditional risk factors, what can we do to identify them?

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Dr. Halena Gazelka 19:33

That is fascinating, Jeremy. Any last words you'd like to share with our listeners today?

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Dr. Jeremy Jones 19:37

No, I appreciate you shedding light on this subject. I would just say that, you know, as a patient or as a caregiver, if you have a patient who you would traditionally think they're too young to have colon cancer, we have to change your mind about that. Unfortunately, there is not an age where I would say you're too young to have colon cancer. That's not to say that everybody that has rectal bleeding who's young has colon cancer. I 100% agree that hemorrhoids are more common than colon cancer. But you have to rule those out, right? So, just because you think somebody has hemorrhoids, that's fine, but you have to prove that it's not cancer.

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Dr. Halena Gazelka 20:14

Words of wisdom. Thanks for being here today, Jeremy. Just a reminder that March is Colorectal Cancer Awareness Month. And we have been visiting today with Dr. Jeremy Jones, medical

Cancer Awareness Month. And we have been visiting today with Dr. Jeremy Jones, medical oncologist at Mayo Clinic in Florida regarding colorectal cancer and screening. I hope that you learned something. I know that I did. We wish each of you a wonderful day. Mayo Clinic Q&A is a production of the Mayo Clinic News Network and is available wherever you get and subscribe to your favorite podcasts. To see a list of all Mayo Clinic podcasts, visit newsnetwork.mayoclinic.org. Then click on podcasts. Thanks for listening and be well. We hope you'll offer a review of this and other episodes when the option is available. Comments and questions can also be sent to mayoclinicnewsnetwork@mayo.edu.