

Mayo Clinic Podcast - Dr. Daniel Ma - YouTube audio - 4 7 21

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SPEAKERS

Dr. Daniel Ma, Dr. Halena Gazelka, Narrator

Narrator 00:01

Coming up on Mayo Clinic Q&A:

Dr. Daniel Ma 00:04

This is a cancer that you don't want to wait around for. Many of the less invasive options for treatment become less and less available if the cancer becomes bigger.

Narrator 00:16

When it comes to head and neck cancer, early detection is key to recovery. Treatments can include surgery, radiation therapy, chemotherapy, or a combination of these treatments.

Dr. Daniel Ma 00:26

Head and neck cancer is so complicated you need to go to a surgeon or a radiation oncologist that regularly sees these types of cases.

Dr. Halena Gazelka 00:36

Welcome, everyone to Mayo Clinic Q&A. I'm Dr. Halena Gazelka. Head and neck cancers are a broad category of cancer, and treatment depends on the type, the location, and the size of the cancer. Treatment often involves surgery, radiation therapy and chemotherapy. Head and neck cancers caused by the human papilloma virus, or HPV, are becoming increasingly common. And these cancers primarily occur in the tonsils, or in the tonsillar tissue at the base of the tongue. After treatment recovery from head and neck cancers can also be complex. It may involve working with rehabilitation specialists and other experts to cope with some of the side effects that can occur. Some of these include hearing loss, difficulty eating, and difficulty swallowing. Well, here with us today to discuss this very complex topic is Dr. Daniel Ma, radiation oncologist at Mayo Clinic. Thanks for being with us today, Dan.

Dr. Daniel Ma 01:34

Thank you so much, Dr. Gazelka, for inviting me today.

Dr. Halena Gazelka 01:37

Well, I am looking forward to learning from you today because I think this is one of those types of cancer that is really complicated. And also, it is sort of scary for people.

Dr. Daniel Ma 01:48

Head and neck cancer definitely is a cancer type that requires collaboration between multiple physicians to treat well. It's one where tight collaboration between an ENT surgeon, medical oncologist who gives chemotherapy, and a radiation oncologist, like myself who gives radiation or x-ray treatments, is crucial for the success of the treatment. There needs to be many partners as well with dental specialties, speech and swallow, audiology. That's all required as well. So, definitely It is one of those cancers that are more challenging to treat.

Dr. Halena Gazelka 02:26

And it strikes me that that's a pretty broad category, head and neck. There has to be a lot of different types of tissue in the head and neck, so can you tell us a little bit about the types of cancer?

Dr. Daniel Ma 02:38

Sure, head and neck cancers encompass a whole variety of cancers, starting anywhere from the nose going down to the mouth, going to the back of the throat with the lymph tissue that's in that area, going into the voice box, and above and below the voice box as well. The majority of these cancers do however, have similar histology, which is a way of saying there is a cell type that they tend to come from, and cancer that tends to come from the cell type is from the lining of the mucous membranes that happen in that area. So, the majority of cancers tend to be something we call squamous cell carcinomas, which is a way of saying cancers of the lining of the mucous membranes in the mouth, or the nose or the throat. or the voice box that have started to divide in an uncontrolled fashion.

Dr. Halena Gazelka 03:40

Well, when you mentioned different specialists working it reminded me that when I go to my dentist, I think she checks my mouth for presumably head and neck cancers. There are many ways that these head and neck cancers present. We're always very grateful for our colleagues in dental specialties because they do send us some patients, quite a few patients that they find through a dental examination. Many patients will also present with lymph nodes inside their neck. The most common presentation for the HPV, Human Papilloma Virus associated cancers, for example, is a painless mass inside the neck that starts growing. Some antibiotics are attempted to see if it's an infection, and when they're unresponsive to antibiotics they get referred to a head and neck surgeon who subsequently does an examination and a biopsy that finds the cancer. So, there's many ways that these cancers can present given the wide diversity of areas they can come from. Dan, is the HPV virus or HPV the only cause of head and neck cancers are there many causes. There are many causes for head and neck cancers. In a proportion of patients, we don't know what causes the cancer. It could be a combination of genetic and environmental factors. Traditionally head and neck cancers have been caused by tobacco exposure or alcohol exposure. Thanks to our colleagues in public health, tobacco exposure

related cancers have been on the downward trend for some time now. And that's one of the great triumphs of public health. We still think smoking cessation is quite important. There is a growing population of patients, however, who have cancers that are related to the human papilloma virus. You may have heard of this before in reference to cervical cancer and anal cancer, for example. And there are vaccination campaigns going on for boys and girls around the country. I would highly recommend people get vaccinated for HPV. I'm getting my kids vaccinated for HPV. But it's one of those things where the HPV related cancers is actually the fastest growing demographic of cancers in the United States. Wow. Yeah. And throat cancers, more accurately what we would call oral pharynx cancers, so cancers of the lymph tissue in the tonsils, and in the back of the tongue, those are the cancers that really arise from the HPV virus. These are cancers that tend to arise in people who are younger than our traditional head neck patients. They tend to have less smoking and less alcohol exposure than before. So, it's a population of patients that tends to be younger and healthier that get this new type of HPV associated throat cancer. And what a shame if it is preventable with a vaccine. Yes, yes, definitely. It's preventable with vaccination. So, it is one of those things that we should really be pushing. Dan, you mentioned a painless lump, or a lymph node, or a dentist finding something in the mouth on exam. Are there other signs and symptoms that might cause patients to know that they should have had this checked out or that they might have a tumor? Some patients have a persistent sore throat that they think it's just a mild infection going on in the beginning and doesn't go away. Some people have pain when chewing or swallowing. Some patients have pain that goes to the ear, what we call referred pain. That happens because some of the nerves for the tongue, for example, also have connections to the ear, so you actually have a pain in that area, but you feel it inside your ear. So, there's many different ways that these cancers can present for the back of the throat. When we're talking about head and neck cancers for the voice box, for example, patients will often present with increasing hoarseness, or in lack of strength in their voice. When we're talking about nose cancers, nasal cavity, or nasal pharynx cancers, patients will sometimes present with unexplained nose bleeding. So, there's many different ways, but those are some of the more common ways that these cancers present. So supposing that one of our listeners has a concern, where do they go next? I presume their primary care physician, and then how does the diagnosis occur?

Dr. Daniel Ma 08:24

So, I would say the most important thing is to get that area examined first. The standard examination is done through a fiber optic endoscopic video exam, which is a way of saying they put a small flexible camera up your nose and take pictures inside the nose, inside the back of the throat, inside the voice box, and just check those areas out to see if they're looking okay.

Dr. Halena Gazelka 08:50

That can be done in the office Dan, is that correct? It's not necessarily a surgical procedure?

Dr. Daniel Ma 08:55

That is not a surgical procedure. That is done as an outpatient, maybe with some mild numbing medication that's used beforehand in spray form. And that's usually done at a head and neck surgeon's office. So, the first referral is usually to a head and neck surgeon. After an unusual mass in the head and neck has been found, the next step would be to biopsy that area, which is to say to get a tiny piece of that tissue and look at it under the microscope to see if it's cancerous or not. Sometimes that's done

with a very thin gauge needle into a node inside the neck. Sometimes that's done by taking a small piece of the tumor itself when you see it under fiber optic examination.

Dr. Halena Gazelka 09:41

So, now the diagnosis has been made. I talked in the intro about the treatment being rather complex. So, where do they go next? What's the treatment like? The next step is to figure out where the cancer is, in terms of its location, both inside the head and neck, and to make sure that the cancer hasn't spread anywhere else inside the body as well. So, depending upon the type of cancer, because it is a little different, additional imaging is required. Usually that involves either a CT scan of the neck or an MRI of the neck and face. And some type of imaging for the chest, a PET CT, which is an exam where they give you a tracer that lights up in cancer cells, is often used as well, both to figure out if there's cancer involved inside lymph nodes inside the neck, and to make sure that there's not disease elsewhere inside the body as well. So, the next step after biopsy confirmation of cancer, would be what we call staging examinations, where we try to figure out by imaging and other means, where this cancer has gone to. Okay, and then you know the stage. Is surgery always the first step? There are many different ways to treat head and neck cancer, and this is a cancer that requires a close collaboration between surgeons, medical oncologists and radiation oncologists. In some of these cancers, the best step is to do surgery first. And some of these cancers, the best step is to do radiation therapy, and possibly chemotherapy without surgery. And then some of the cancers the best step is to do chemotherapy followed by radiation therapy. So, each one of those decisions needs to be made by an experienced team who understands this cancer well. Because the goals of our treatments are not just to cure people of their cancer, but it's to cure people of their cancer and also have the least amount of long-term side-effects from their treatment as possible. And I know in my familiarity with head and neck cancers, pain medicine, and also palliative medicine, which means to help with symptoms when someone is going through treatments like this. And I know that patients can have quite a few side-effects from these types of treatments. So, it's very important to have that team model of care, I would think. Definitely. Surgery definitely has a period after surgery where there's recovery, although with new techniques with transoral surgery, that's done in places like the Mayo Clinic, the older, larger surgeries have been replaced in situations that are appropriate, with much more minimally invasive surgical techniques with much shorter recovery times, inpatient times of one to two days after surgery, for example. So, there have been many advances in that area. Radiation therapy also traditionally has been something that has had a lot of side-effects, dry mouth. problems swallowing, problems with the jaw after treatment. There are newer radiation techniques, including more focused radiation techniques, something available at the Mayo Clinic called proton therapy, for example, that is even more focused than traditional x-rays, that patients may be good candidates for after evaluation that are also newly available. And our medical oncologists are coming up with less toxic chemotherapy options as well, that have less effect on blood counts, don't cause nausea, don't cause hair loss, that could be appropriate depending upon the situation. Of course, there are some situations where larger surgeries, or more intense radiation, or more intense chemotherapy are still required. But thanks to research efforts that we've been doing throughout the nation and throughout Mayo Clinic, for example, we've been able to lessen a lot of these long-term toxicities. Keep that thought in mind, I want to get back to research in just a minute. But what you've said sounds like it is complex to treat these types of tumors. How in the world can our listeners know if they suffer from a cancer like this, that they are getting the best treatment that they can get or that they're getting the appropriate treatment? I would say first and

foremost, it's important for patients to seek out care at a high-volume center. So there have been multiple research studies published on this topic before because head and neck cancer is so complicated, you need to go to a surgeon or a radiation oncologist that regularly sees these type of cases. There's been studies that look at patients that go to high volume centers, and they tend to be centers such as the Mayo Clinic or ones associated with universities, academic centers. They have better outcome because of the closer collaboration of people who are used to treating this type of cancer. So, I would say the first and foremost thing would be going to an area that treats this cancer frequently with collaboration between people. The second item I would say, is this is a cancer that you don't want to wait around for. So, if you can't get an appointment, within a month, for example, we should really expedite an appointment to a place that can get you treated, because many of the less invasive options for treatment become less and less available, if the cancer becomes bigger. So, if a listener is uncertain, then a second opinion might be recommended, as long as it is prompt? Definitely. A prompt second opinion, I would say would be highly recommended for listeners. Does coming to Mayo Clinic mean that all the care must be received at Mayo Clinic, or do you, like in some other areas, work with home providers or oncologists and other team members closer to the individual's home to deliver the care? That's a great question. There's two parts of care. There's the actual care itself, which includes radiation, chemotherapy and surgery. That portion of the care we recommend happens at Mayo Clinic just because, like I discussed before, there is a survival benefit in having your cancer treated at a higher volume center. The other portion of treatment is the follow-up, which is actually quite important for these types of cancers as well. Here at the Mayo Clinic, for example, we would follow patients every three months for the first two years, you would have scope exams during each one of those visits, you would have periodic imaging that's done around that time as well. And understanding that patients are coming from further away, three-month visits might be inconvenient. We often partner with physicians elsewhere in the follow-up capacity. So, what are the survival rates like for head and neck cancers? Survival rates for head and neck cancers vary widely based upon where the cancer is located in, the anatomic location and the stage of the cancer, meaning how extensive the cancer is at presentation. I would say however, for the most frequent cancer that we discussed previously, the HPV related oral pharynx cancers, those are cancers that are more responsive to radiation and chemotherapy. Those are cancers that also happen in younger patients who tend to have less medical issues at the same time. And if caught at a reasonable time before the cancer has gone elsewhere in the body or has gotten too large. Survival rates for our HPV oral pharynx patients is quite high, upwards to 90% for patients who don't have disease that has spread elsewhere. So, this is a treatable disease. It's a disease that's very responsive to radiation, chemotherapy and surgery. And it's one of those diseases because the patients are young, because the patients have less issues with smoking and things like that, because there's a good cure rate, that quality of life long-term becomes quite important for these people. So, many of our listeners may be thinking like I am, well, I would rather just not get one of these in the first place. But finding it early is important, not smoking, alcohol use may play in, HPV vaccines, anything else that individuals can do to decrease their probability of developing head and neck cancers? I would say even if patients are smoking when they are diagnosed with a cancer, it's never too late to stop smoking. So, there are additional studies that show that patients who continue smoking throughout their course of treatment, it makes their tumors tougher to treat. So, I would say smoking cessation right now, of course is best, but even after you're diagnosed, if you're diagnosed and you're smoking, stopping then would be very, very helpful. I feel like everyone that I have on this program, no matter what the disease is, if it's affected by smoking, that stopping smoking

is a good answer. Well, back to the research question, Dan. Can you tell me a little bit about the research that's going on here at Mayo Clinic for head and neck cancers? I would say there's several broad categories of research for head and neck cancers that happens here at Mayo Clinic. One of the main focuses of cancer that we have is for the HPV related oropharynx cancer population, particularly because these patients are young, and they'll live longer, and they'll live longer with the side effects of their treatment as well. So, many of the side-effects associated long term with oropharynx cancer deals with the amount of radiation dose that patients receive. We have traditional doses of radiation therapy that goes for six to seven weeks of daily treatment, and this is a very excellent treatment that's been developed over decades, based upon kind of the tougher cancers that we used to traditionally see that were associated with smoking, not necessarily tailored for the HPV oral pharynx population. Here at Mayo Clinic, one of our main focuses is to see how we can leverage minimally invasive surgery and gentler chemotherapy to allow us to substantially reduce the amount of radiation that patients get afterwards. So, instead of getting a six-week course of radiation after surgery, patients, for example, would receive a two week course of radiation therapy if they qualify. And we have published data now showing that that type of treatment not only works very similarly to traditional treatments but has much better long-term and short-term side-effects with treatment. The other main focus of research that we have at Mayo Clinic is to figure out the situations where it's best for us to leverage the focused radiation potential of proton beam therapy. You know, proton beam is great for many cancers, but not all cancers. So, having an evaluation to determine whether that case is important, and doing research to see which patients would most benefit from proton beam is one of the focuses here. And then one of the final focuses that we have is looking at ways we can look at blood samples or tumor samples to figure out which patients are at higher risk because of their tumor that we should be a little bit more aggressive with, which patients are less at risk that we might be able to be less aggressive with, and whether we might be able to use blood samples, for example, maybe in a test that you would send in through the mail, for early detection of cancer recurrence or even for potentially cancer screening. So, that's one of the focuses that we have here for research. Interesting. Dan, how do individuals find out about clinical trials that are available or that they might be eligible for? I would say, first of all, the Mayo Clinic clinical trials page is a great way to start to look for clinical trial opportunities. If you have a head and neck cancer, contacting us for a second opinion by video, for example, would be an excellent way to do that as well. We do have an oral pharynx multidisciplinary clinic, which is the first one in its nation to be a clinic where the ENTs, the radiation oncologists, the medical oncologists all meet with the patient simultaneously. And that's a weakly occurring clinic. So, I often have patients who contact me and say, hey, I had this new diagnosis from a lymph node, we're usually able to get them get them in on the following Monday, the oropharynx multidisciplinary clinic, and we have many trial options available there as well for patients. Well, that's exciting progress is being made then that's wonderful. Dan, you know, we are thinking so often now of equity in health care, and that we want to be sure that all individuals have equal access to preventative therapies, to treatment options, and regardless of where they are located or ethnicity, etc., whatever may be the barrier. Are there disparities related to head and neck cancers that we should be aware of? There are absolutely disparities in health head and neck cancer, just like there's disparities in cancer care throughout the United States. Much of this is related to access to health care, like you've alluded to before. And here at Mayo Clinic, we are committed that people of all backgrounds would be able to have access to quality health care. One of the main challenges for head and neck cancer treatment, particularly in reference to radiation therapy for example, is the duration of time it requires. Traditional radiation therapies require daily treatments

for six to seven weeks, which may be very challenging for patients who are further away. Even with our reduced dose radiation trials, it's still two weeks of twice daily radiation and again, that could be challenging for some people to fit into their logistical constraints. So you know, here at the Mayo Clinic for example, we've partnered with places like the Hope Lodge to make sure that people have access to lodging. We look at ways through social work that we often employ for many of our patients, regardless of background, because all patients, you know, taking six weeks off of work is not an easy prospect for anybody. So, we work very hard to make sure that people, regardless of background have access to quality treatment. Oh, that's wonderful, because we definitely want individuals to feel that if they were a candidate for a clinical trial that we could help them, or for treatment that we could help them with some of those details. That's great, Dan. Thank you. Dan, is there anything else that you would like our listeners to know about Mayo Clinic or about head and neck cancers today? I would say if you're looking for a second opinion for head and neck cancers here at the Mayo Clinic, I believe the Mayo Clinic head and neck website does have a link that you can request an expeditious video appointment for. And we are always happy to talk to you, and give a second opinion, and try to get you in quickly. Thanks so much Dan for sharing with us today. Oh, thank you so much for your time as well. Our thanks to Mayo Clinic radiation oncologist, Dr. Daniel Ma, for being here with us today to speak with us about head and neck cancers and their management. I hope that you learned something, I know that I did. We wish each of you a wonderful day.

Narrator 26:28

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