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Welcome to Yale Cancer Answers with Dr. Howard Hochster, Dr. Anees Chagpar and Dr. Steven Gore. I am Bruce Barber. Yale Cancer Answers is our way of providing you with the most up-to-date information on cancer care by welcoming oncologists and specialists, who are on the forefront of the battle to fight cancer. This week, it is a conversation about pain management for cancer patients with Dr. Donna N. Thomas. Dr. Thomas is an Assistant Professor of Anesthesiology and the Division Chief of Pain Medicine at the Yale School of Medicine. Dr. Hochster is a Professor of Medicine in Medical Oncology at the Yale School of Medicine and the Associate Director for Clinical Services at Yale Cancer Center.

Hochster So, you know, pain is like one of the key things that we deal with in the cancer patient. May be, you would like to start by talking a little bit about what causes pain for this particular kind of patient?

Thomas Yeah, unfortunately, you know, pain, as you mentioned is one of the most profound and significant thing to a patient who is having cancer can undergo and there are several different factors that can cause pain in those patients. One is the tumor itself and the location of the tumor. For example, if the tumor is located in the bone that can be extremely painful, in an area that is covered by a capsule, for example liver or kidney that can be painful also. So the tumor itself can cause pain, but also certain types of cancer treatment can cause pain, such as chemotherapy and radiation therapy and when we see those the typical type of pain that the patients would have is some form of nerve pain and then finally, the surgery to remove the cancer itself can lead to some form of chronic pain. So when we see the patient who has cancer, we tend to see the pain in all those different areas.

Hochster So like direct pain from the primary or metastatic tumors, pain related to surgical management and then this kind of neuropathy type pains that people get from treatment are kind of like the main why you think about these things and so you have different approaches to each of those?

Thomas Well our approach would mainly be towards the type of pain the patient is experiencing and whether or not the tumor or the cancer itself is expected to be curative or not. When we approach those patients with cancer pain, we always do it as a team effort with their oncologist, their specialist, and their surgery because their expected life expectancy, how the tumor will expand if it does not plays a role in how we approach it, so yes.

Hochster So, this is all very interesting and a little different than what most anesthesiologists do. Can you tell us a little bit about your background and how you came to this instead of just putting people under?

Thomas Ha ha ha, absolutely. So, I really started out following medical school matching in the field of surgery and once I made the transition to anesthesiology one of the things that initially drew me to pain medicine was the fact that I could use some of my surgical skills with the anesthesiology skills in pain medicine, but the approach to pain has changed over the last years. The approach has become a biopsychosocial model and I have a sister who does have sickle cell and who has had significantly painful crisis. So family experience along with my previous experience into surgery and the new approach to pain that is just not procedure only is what really attracted me to pain medicine.

Hochster Oh that is very interesting and certainly, you know highlight the need for these kind of multidisciplinary pain programs, so when we talk about multidisciplinary pain programs like who gets involved with these?

Thomas Well, for cancer pain, what we try to do is we have patient not only see the pain specialist, but also have the opportunity to see the palliative care specialist and also to see a specialist in integrative or complimentary medicine and that will involve auto modalities which could include acupuncture, meditation, or yoga, massage, neuropathy, which is the treatment with nonconventional medication but herbal medication and then, also if needed, social work will play a part and then importantly, a psychologist or a psychiatrist in behavioral health will play a part because what we see in pain is that there is a significant impact that pain can have on the brain which can cause symptoms that are not necessarily all fault of the patient but symptoms of anxiety, symptoms of depression, so having a person available to help the patient, work through those issues, I think is very important.

Hochster So when should the physicians refer people to the pain service or when should the patients be looking to go to one of these kind of multidisciplinary pain services if they are, you know, just having pain and getting basically opioid-type medicines for their pain?

Thomas So I think as soon as possible, the patient really should be seeing the pain specialist whose goal is to work as a team member with the oncologist and the surgeon in order to treat the pain, the goal is not to use opioids only, the goal is to use a multimodal approach to pain by using medications that decrease inflammation, help with nerve pain as well as using opioid medications. What we find out is that when we use just opioid medications to treat this type of pain and there are some types of pain that required opioid medications, but we find out that continuous opioid use can have significant side effects that we want to try to avoid especially if we want to treat the pain appropriately.

Hochster Well, are there particular kinds of cases that you think need more urgent referral to the pain service?

Thomas Well absolutely, ones that are known historically to be painful and the ones that are more likely that the process in which the patient has to undergo in order to have treatment or to be successful cured might be a long process. For example, patients with breast cancer that can be resected and completely

curable, we would not typically see those patients unless the patient have postoperative pain as a result of breast surgery, but for example patient with myeloma, those patients who will have you know painful areas, those kind of patients that we would look forward to be seen.

Hochster So, myeloma is kind of hematologic malignancy of the bone marrow, so people usually present with pain in the bone and that is very difficult to control, so those people may benefit earlier on and then also people who have metastasis from other kinds of solid tumors, I imagine.

Thomas Yes, so definitely patients who have had metastasis in areas that are painful are patient who should be referred to us. Hochster So when you see one of these patients like what kind of evaluation do you do that might be a little different, the way their regular oncologist sees them? Thomas Well, a part of our workup is not only the physical examination on the patient is used to, but there is a huge psychological component to our workup with these patients too, so we keep that as a part of our consideration would make in our determination. We tried to delineate with the patient the specific type of pain that you are having, whether the pain is one particular area, does it radiate to another area because radiating pain is important for us to find out. So we try to do those things in our workup and our physical exam. Our physical exam does incorporate both a musculoskeletal exam and a neurological exam as well and we do that all combined to make a determination as to what to do and how to approach the pain.

Hochster I see and in terms of evaluating depression and anxiety, how do you handle that?

Thomas Well, that is done with an evaluation tool that is given to our patient in out intake packet and the evaluation tool is a validated tool, that means it has been used before and shown to give us the indication whether or not this patient should seek further help, but the consensus has been that regardless if a patient does have a cancer diagnosis, we should try to have some form of evaluation for those patient to make sure that we are not missing anything that the patient may not be revealing.

Hochster Okay and so in your team you have again the different kinds of supportive care including alternative medication, acupuncture, and psychosocial support and you will prescribe anxiety or depression medications in addition to narcotics whatever is needed for them?

Thomas Yes, so the behavior care specialist or a psychiatrist will provide those medications because the patient as a part of the cancer team does have the ability to see that specialist. Many of the drugs that we use for nerve pain also have the added effect of helping with depressions, because they do work on nerves as well.

Hochster And while we are talking about that, so the nerve pain is generally related to neuropathy from chemotherapy drugs, what we tend to call

chemotherapy-induced neuropathy?

Thomas Correct.

Hochster And so what kind of things are you doing for that specifically.

Thomas So we have the option of using drug classes like anticonvulsants, tricyclic antidepressant, some serotonin type drugs to help with those kind of pain and some of those drugs do have side effects, so what we typically do is we use the one that is typically the tried and true one like Neurontin or gabapentin which is also indicated for the pediatric population and if the patient develops side effects or issues with that medication, then we will move to other drug classes. Also, if the patient has any kidney issues or any liver issues that will help me in determination as to what kind of medications to start the patient on. Other alternatives are used in for example a Lidoderm patch which is similar to Novocain in the form of a patch, there can be capsaicin patch that can be used which is similar to what you eat when you eat your spicy sauce and pepper that has been shown to help with that kind of pain also.

Hochster So those are used in the situation we have specific spots?

Thomas Yes, yes. The patches are used when you have a specific localized area.

Hochster We are going to take a short break for a medical minute, please stay tuned to learn more information about pain management with Dr. Donna Ann Thomas.

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Hochster Welcome back to Yale Cancer Answers. This is Dr. Howard Hochster and I am joined tonight by my guest, Dr. Donna N. Thomas in the Anesthesia and Pain Medicine Department at the Yale Cancer Center and Smilow Cancer Hospital. We are discussing pain management for cancer patients. So, Dr. Thomas can you tell us who exactly is part of your pain management team and what their kind of focus is when they see a patient with cancer, there are a lot of different kinds of folks involved here?

Thomas Absolutely. So the anesthesiology pain medicine team is made up of Dr. Robert Chow, Dr. Christopher Noda, along with myself and they have a

background in pain medicine.

Hochster And what are they kind of as anesthesiology pain management people, what is their focus?

Thomas So their focus on cancer pain is to provide interventions just like myself for a patient with cancer pain.

Hochster Can you tell us about some, you know, what are some of the interventions that you are doing, nerve blocks?

Thomas Absolutely, so we do nerve blocks, which can help with specific types of pain from the head all the way down. For example, the patient with headache we can focus and do blocks of the nerve that supply the head, for example the occipital nerve. We do trigger point injections for patients with muscle spasms. We do epidural injections as needed for radiating pain that is a result of something pressing on the nerve root. We do many different types of nerve blocks for a patient who has had problems in what is called the facet joint, but is just a joint in the back that allows you to bend backwards with no issue and that can cause some inflammation and we can do injections for. For patients with abdominal pain, for example, patients with pancreatic cancer, those patients can benefit from what is called a celiac plexus block and it is just a blockade of the bigger nerve bundles. For the patients with GYN or urological cancers, they could benefit from a supraclavicular block; rectal cancer, we can consider an infraclavicular block. So there is a whole range of procedures that can be done.

Hochster And so just for people who are listening, what exactly is a nerve block?

Thomas A nerve block is an injection of local anesthetic and steroids around a nerve that is supplying the area that causes the pain.

Hochster And you just do that based on your knowledge of anatomy or use CAT scan to help show you where to go, I mean you got to put the needle in to a specific area?

Thomas Correct. So we use some form of imaging to help guide us where the needle goes. There are some procedures that require the use of ultrasound, some procedures that require the use of an x-rays and some procedures that does require the use of a CAT scan.

Hochster I see. So basically people who have kind of a regional area be it the abdomen, the pelvis, a nerve block may be helpful and reduce the need to take a lot of pills for the pain?

Thomas Correct and the whole goal is to one, increase functionality and two, reduce the amount of medicine that the patient needs to take daily.

Hochster Which is really good, cause it decreases the amount of side effects from those medicines which are often quite problematic.

Thomas One other things that we can offer also is what is called an intrathecal pump and it is just delivering the pain medicine in a different way. It is deliveries towards the spinal cord in the spinal fluids and what that allows to happen is that the patient will get the same amount of pain control but with less medications, therefore it is more functional.

Hochster So, it is a little bit like I think a lot of people are familiar with epidural anesthesia from childbirth. It is like that except the use of continuous pump to kind of cause more numbness of that painful area.

Thomas Exactly.

Hochster Yeah, I have seen that to be very helpful to patients at times that can be a real benefit. So those are the kind of things that the anesthesia pain medicine team is focused on in. Who else is involved in the pain medicine team?

Thomas Interventional radiology absolutely plays a big role in the pain medicine team in cancer pain as well and that is led by Dr. Kevin Kim and the interventional radiologist does a lot of procedures that are very similar to pain medicine. We do have some similarities when it comes to our procedures and what we offer. In addition, they do have the ability to provide radiofrequency ablation of certain tumors and also for patients with vertebral fractures as a result of the cancer, they have the ability to do a procedure called kyphoplasty and vertebroplasty which can be done by them as well as surgeons.

Hochster So that is like injecting some glue to stabilize the bone. That can be helpful also if people just have osteoporosis from their treatment and have a collapsed vertebra. In either case, interventional radiologist can help out with that kind of pain?

Thomas Exactly, yes and it does provide a significant amount of relief for those patients.

Hochster And the radiofrequency ablation is kind of putting in a little probe and then microwaving the tumor from the inside. So if you have shrinking tumor that way can also relieve pain?

Thomas Exactly, correct, especially the tumors that are in areas with capsules that can be very painful once that capsule starts to stretch.

Hochster You said before that was kind of like may be the liver or the kidney. So sometimes you can recommend a way to treat the most painful areas with radiofrequency ablation and other members of your team?

Thomas Other members are they lead for integrative medicine is Ali Athar, he leads integrative medicine which includes yoga, massage, acupuncture, Pilates, music therapy, naturopathy, and then finally, Mark Swidler from palliative care is the lead in cancer pain for palliative care medicine.

Hochster So there are lot of people from various groups that kind of come together under the pain management group to help specific areas as needed for

treatment of pain.

Thomas Exactly.

Hochster You know, patients today with pain have issues, I mean it is getting harder and harder even to get pain medication today with all the controls for opioids. What has been your experience with that?

Thomas So part of that is providing education to the patient and to our colleagues and try and attempt to minimize the amount of opioids on the patient. We do realize that if the patient does need opioids that is what we need to do on that patient, but we make every attempt to minimize it. We educate our patients about looking for signs of tolerance which is your body getting used to the medication itself versus the risk of abusing the medication which is you wanted to take the medication regardless of if you are in pain or not. We do realize that there is a lot of stigma from society with this opioid crisis, but cancer pain and patient experiencing pain as a result of their cancer is a particular subset of patients that we do recognize will need opioid medication. It will be different if you were cured from your cancer and still required or wanted opioids and we do see those patients and it does take a lot of education to get those patients to come off the opioids itself.

Hochster Right, but in my experience it is pretty uncommon, most patients I think are worried about becoming dependent and are reluctant to take the pain medication they need, so most of the time I think I have to encourage them to take enough pain medication.

Thomas And we do see that patient population to that we have to encourage them to take the medication, some are afraid of the side effects of medications and they do not want to be sedated, they do not want to be nonfunctional and those patient we have to encourage to take the medications and try to find this right type of opioid for that patient that is going to minimize the side effect for that patient, but we do educate them about the types of medications we are using, why we are using the medications, and how to take the medications.

Hochster And I would like to emphasize to my patients also that they are not going to get addicted, I mean they may need to be tapered off the medication, but you know addiction is kind of a behavioral thing, it is not a response to pain. So when you need narcotic pain medication to treat your pain, you are not going to become an addict.

Thomas Yeah and that is important for them to know because there is a big difference between addiction and tolerance and sometimes, there is a confusion between what is tolerance and what is addiction and tolerance is going to happen with anyone taking opioids, if you are taking it consistently because you need to free your pain that your body does get used to the medication and we either have to change the type of medication or make some adjustments and increase the medication.

Hochster Unfortunately, there are a number of pain medications available today,

so there are definitely choices in ways to switch things around. So what do you see as major advances that have been made in treatment of pain, cancer pain, and management of cancer pain patient?

Thomas Well, I think the major advantage would be the ability to provide implantables to the patient, the furtherance with research when it comes to the use of drugs with patient and use an multimodal approach. The impact that use a psychological therapy like cognitive behavioral therapy and biofeedback therapy is having with patients who are living daily with pain and the ability to refer to a pain specialist earlier and just not end of life, therefore helping with the functionality and quality of life.

Hochster Well we always have to focus on the quality of our patients' lives and do the best we can for that, so that is very important. Can you tell us a little bit more about the biofeedback?

Thomas So biofeedback therapy is having the patient use some form of imagery, for example, if you like to go to the beach, using that and focusing on being at the beach and focusing on listening to the waves and feeling sunshine and using that to focus has been shown to have an effect on the brain that actually helps to reduce the pain.

Hochster Are there machines and things to help with that?

Thomas It is guided imagery and especially now the smart phones can provide apps, there are things that can help you through this process. I believe the most important part is getting the patient to the point of going through the process and that is where a behavioral health or psychologic person can be very helpful.

Hochster So we have some people who can help with biofeedback in our clinics?

Thomas Yes.

Hochster And some of the other supportive care alternative that you were speaking might include massage and what other things?

Thomas Massage therapy, music therapy and music therapy is having the patient focus on the music instead of their pain and we all have various different taste in music, so it would have to be the music of your choice, definitely meditation, yoga has been shown to be helpful for those patients also.

Dr. Donna N. Thomas is an Assistant Professor of Anesthesiology and Division Chief of Pain Medicine at the Yale School of Medicine. If you have questions, the address is canceranswers@yale.edu and past editions of the program are available in audio and written form at YaleCancerCenter.org. I am Bruce Barber reminding you to tune in each week to learn more about the fight against the cancer here on WNPR, Connecticut's Public Media Source for news and ideas.