[MUSIC PLAYING]

MARK TRUTY: We're finding that patients with more advanced tumors, who typically would have survival of less than a year, using our protocol and our aggressive procedures, we can extend that to five years, on average, but many patients beyond that. The traditional approach is a patient has some symptoms. They get a CAT scan. There's a mass. There's no evidence of spread.

They would go to the operating room immediately to try to take the tumor out. And invariably, they would either leave some cancer behind, or the patient would have a complication after surgery, and they wouldn't get any chemotherapy, and the cancer would come back quite rapidly, and so a completely pointless exercise.

So now what happens, a patient comes in, and as long as they're not metastatic-- meaning no spread of cancer anywhere-- and then regardless of the involvement of the blood vessels, they have to grow appropriate staging. So not only do they get CT scans, we have special types of PET scans that we get to better identify where the tumor is and how active it is, a variety of different blood tests that can look for circulating cancer within their blood.

We also stage their abdomen, take a look in the abdomen to see if there's any microscopic cancer cells. And then they go through an extensive duration of chemotherapy to kill all the cancer that we can't see-- that's the specific thing-- not just what we can't see, because we know most people have cancer cells elsewhere in their body.

After we do the chemotherapy, we have to prove that what we're giving is effective. So we use the PET scans and all these blood markers to prove that the chemo we're giving is particularly effective. At that point, we move on the radiation therapy to treat not only the main tumor, but the surrounding structures. And then after that, we come up with a pretty aggressive operative plan to remove the entire tumor and all the at-risk tissues, and then put that patient back together in a livable manner with a good quality of life.

CHEE-CHEE STUCKY: Maybe even 10 years ago, we were saying, if the tumor's touching major vessels, we really shouldn't even try to remove it. Now we're seeing, well, the tumor's touching major vessels, but the patient has had a good response to chemotherapy. We should remove the vessels, too, and reconstruct the vessels, and do what we can to rid them of their disease.

MARK TRUTY: Those operations do carry much higher risk in terms of complications, et cetera, and therefore, if I'm going to put a patient through a higher risk procedure, I need to look them in the eye and say, hey, this operation makes sense long term. And therefore, we have to treat them, prior to surgery, appropriately. That's the critical thing. The operation has a benefit to that patient.

We do have much better chemotherapy than we've had in the past. For about two decades, we've only had one single drug that had very poor response rates. Now we have combinatorial chemotherapy, several different regimens, that have tripled the response rate and doubled the survival for patients with pancreas cancer. So we're utilizing those much more effectively.

CHEE-CHEE STUCKY: As the chemotherapy is taking effect, patients start to feel better oftentimes, and they might be able to eat more. They might be able to have less pain, and thus, can regain some strength with more energy. And that actually can sometimes help get them to a better state for surgery. In the past, the typical survival rate for patients diagnosed with pancreas cancer was less than 20% at five years.

If we treat patients with that multi-modality approach-- meaning as aggressive as possible with chemotherapy, surgery, and sometimes radiation-- we can potentially get a much better five-year survival rate.

MARK TRUTY: The one thing, particularly from a surgical point-of-view, that we have the greatest evidence for is the volume and outcome relationship, meaning the more types of procedures a surgeon or an institution does, the better their outcomes are, in terms of complication rates, long-term survival, et cetera. That has been shown time and time again. So you definitely want to be treated at a center that does this at a very high volume and is very comfortable with that.