Welcome to Yale Cancer Answers with Doctor Anees Chagpar.
Yale Cancer Answers features the latest information on cancer care by welcoming oncologists and specialists who are on the forefront of the battle to fight cancer. This week it’s a conversation about the use of robotics and minimally invasive surgery for urologic cancers with Doctor Joseph Brito. Dr. Brito is an assistant professor of medicine and urology at the
Yale School of Medicine, where Dr. Chagpar is a professor of surgical oncology.

Let's start off by you telling us a little bit more about yourself and what it is you do.

I'm a urologist and urologic oncologist focusing on the treatment of cancers of the kidney, bladder, and prostate. We also take care of testicular cancer and this is kidney cancer awareness month, so I am happy to be here and discuss kidney cancer specifically today.
I think a lot of people by now have gotten used to the concept of laparoscopic surgery, the concept of taking out gallbladders and appendixes through little tiny incisions. The concept of robotic surgery has now taken off as well, in large part in urology. But can you tell our audience a little bit more about what robotic surgery is, how it’s the same or different from laparoscopic surgery and particularly in urology? Sure. I’m actually really glad you asked this question because I feel like I spend a decent amount
00:01:53.210 --> 00:01:54.996 of my day explaining to patients

00:01:54.996 --> 00:01:57.130 what the robot does and doesn’t do.

00:01:57.130 --> 00:01:59.490 So laparoscopy, as you said,

00:01:59.490 --> 00:02:00.974 is essentially making small

00:02:00.974 --> 00:02:03.200 incisions in the abdomen and then

00:02:03.270 --> 00:02:04.950 through those incisions filling

00:02:04.950 --> 00:02:07.050 the abdominal cavity with air.

00:02:07.050 --> 00:02:09.450 So essentially you’re creating a Dome,

00:02:09.450 --> 00:02:11.564 and that allows us to do surgery

00:02:11.564 --> 00:02:12.888 inside the abdominal cavity

00:02:12.888 --> 00:02:14.648 without making a big incision,

00:02:14.650 --> 00:02:16.938 which is how things used to be done.

00:02:16.940 --> 00:02:19.820 The robot is laparoscopic surgery.

00:02:19.820 --> 00:02:21.444 It’s just a tool,

00:02:21.444 --> 00:02:24.220 so it holds the instruments for us.
It allows us to make fine movements, it allows us to work in spaces that would otherwise be difficult for human hands or in some cases even laparoscopic instruments to gain access to. I think sometimes there’s a common misconception that the robot does the surgery and we just kind of turn it on and go have coffee or something. That’s not the way it works. It’s a two-part operation basically. So you have a patient of course on the operating room table, there’s the robot which is holding the instruments. There’s an assistant at the bedside who’s putting the instruments in and out.
and maybe running a suction device or helping with various aspects of the case at the bedside and then the surgeon is in the same room generally, maybe four or five feet off to the side, there’s a second console that the surgeon sits at and we’re operating those robotic arms. So that’s sort of the nuts and bolts of robotic surgery. In terms of the benefits, I mean many of the benefits we saw with laparoscopy are what we’re seeing with robotics.
Generally you’re talking about less operative pain, faster recovery, less blood loss, shorter hospital stays. And in cancer specifically, generally we’re preserving the oncologic benefits, the cancer benefits of the operation with those additional benefits of laparoscopic approach. And so when we think about robotics versus laparoscopic surgery, some of the advantages that you mentioned, I mean you get a little bit more dexterity with using the robot arms instead of the standard laparoscopic instruments.
Have there been studies that have really looked at tangible differences in terms of all of the things you mentioned, blood loss, hospital stay, operative, time cost comparing laparoscopic versus robotic surgery? Yeah. So it's a great question. I mean, most of the studies that are done are comparing robotic to open. So what I was just mentioning in terms of blood loss, hospital stay, pain, I mean there's no question that those are generally much better for a laparoscopic or robotic approach. When you're comparing laparoscopic and
robotically, for the most part, it depends on the operation, so for instance in prostatectomy. I think most people would agree that a robotic prostatectomy is really the gold standard and that’s even over laparoscopy now. There’s probably several reasons for that. Some of its training, some of it’s just learning curve, which tends to be a little better with the robot. Cost is generally higher when you’re comparing laparoscopy to robotics, although you know it depends on if you’re looking at direct operative costs,
if you’re looking at longer term costs, like how the impact is on things like urinary function, return to continent, sexual function specific to prostate, some of that cost might wash out in the kidney specifically. Generally we’re using the robot for either radical nephrectomy, which is removal of the whole kidney or partial nephrectomy, which is removal of a portion, specifically the tumor usually. The real benefit there, robotically, at least in my opinion, is again that dexterity.
So for instance, when you're doing a partial nephrectomy and we're removing a tumor off the kidney, we then have to close that defect up, and that's generally done with stitches and stitching with the robot. I think most would agree is easier, perhaps finer, and I would say probably a shorter learning curve in terms of mastery than it would be with a laparoscopic approach alone. And so you know, I think many people have heard about the robotic approach for prostate, less so for kidney.
I mean is it something that people are being offered as standard practice in terms of having a robotic nephrectomy?

Absolutely, when it comes to radical nephrectomy, robotic and laparoscopic approaches, are basically equivalent in terms of cancer control and the actual outcome you’re getting from the surgery.

There are benefits at the surgeon level to robotics as well.
things like
when you're standing there at the
bedside doing laparoscopic surgery
it can be straining on the neck,
it can be straining on the back.
The robot takes a lot of that
out of it for the surgeon.
When it comes to availability,
I think robotics in general has
really permeated into the community,
so I spend the majority of my
clinical time out in New London
at Lawrence Memorial Hospital.
We've had a robot here
ever since I've been here,
and I think many community sites are similar.

So patients are certainly being offered robotic approaches for kidney surgery.

Probably in many instances more than a laparoscopic only approach.

And so that brings me to the next question which is you did mention that there’s a difference in cost.

Is that difference passed on to the patients, I mean when they get their bill for their copay or whatever it is, is it higher?

Are they paying for the robotic approach and is that something that many patients are
taking into consideration when choosing whether to go laparoscopic or robotic or are patients even given the choice?

That’s a really good question. You know, I don’t know the answer to tell you the truth. I think that it depends on a lot of factors which I don’t have granular data on. Things like the various insurance company, how the hospital manages various costs and passes that on to the patient. There is probably no question that a laparoscopic only radical nephrectomy for instance may be
00:08:42.885 --> 00:08:45.285 cheaper at the surgical level
NOTE Confidence: 0.950317
00:08:45.372 --> 00:08:48.080 than it is for a robotic approach.
00:08:49.136 --> 00:08:51.152 But again, I can’t tell you specifically how
NOTE Confidence: 0.950317
00:08:51.152 --> 00:08:53.517 that gets passed on to the patient.
NOTE Confidence: 0.950317
00:08:53.520 --> 00:08:55.160 Like many things in medicine,
NOTE Confidence: 0.950317
00:08:55.160 --> 00:08:57.098 it probably depends on your surgeon’s
NOTE Confidence: 0.950317
00:08:57.098 --> 00:08:59.178 level of comfort with the various
NOTE Confidence: 0.950317
00:08:59.178 --> 00:09:00.638 approach or various surgery,
NOTE Confidence: 0.950317
00:09:00.640 --> 00:09:03.040 what technology they have available.
NOTE Confidence: 0.950317
00:09:03.040 --> 00:09:04.888 You know some of this is patient
NOTE Confidence: 0.950317
00:09:04.888 --> 00:09:05.680 driven as well.
NOTE Confidence: 0.950317
00:09:05.680 --> 00:09:07.328 I think a lot of patients come to
NOTE Confidence: 0.950317
00:09:07.328 --> 00:09:09.672 see me and I think a lot of surgeons
NOTE Confidence: 0.950317
00:09:09.672 --> 00:09:11.088 because they’re facile with the
NOTE Confidence: 0.950317
00:09:11.088 --> 00:09:12.756 robot and they’ve heard about the
NOTE Confidence: 0.950317
00:09:12.756 --> 00:09:14.564 benefits of robotics and so they’re
NOTE Confidence: 0.950317
00:09:14.564 --> 00:09:16.119 really looking for that approach.

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00:09:17.850 --> 00:09:21.270 You mentioned when we were talking earlier about prostate cancer that

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00:09:21.270 --> 00:09:24.084 while there may be an increased cost

NOTE Confidence: 0.953671466666667

00:09:24.084 --> 00:09:27.086 there may be a reduced cost long term in

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00:09:27.090 --> 00:09:29.757 terms of a reduction in side effects.

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00:09:29.757 --> 00:09:32.967 So you know issues with urinary incontinence

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00:09:32.967 --> 00:09:36.090 or stream or sexual function etcetera.

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00:09:36.090 --> 00:09:39.723 Are there data to support the idea that

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00:09:39.723 --> 00:09:43.650 outcomes are better with robotic surgery

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00:09:43.650 --> 00:09:47.970 versus laparoscopic surgery in terms of

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00:09:47.970 --> 00:09:51.012 preserving nerve function, for example?

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00:09:51.012 --> 00:09:53.690 So for prostate certainly comparing

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00:09:53.690 --> 00:10:02.406 open and robotic absolutely,

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00:10:02.410 --> 00:10:07.274 I mean very clear benefits in terms of
sexual function probably as well.

You know it’s a little difficult to interpret the laparoscopic versus robotic data for prostate, because not a lot of people are doing laparoscopic, pure laparoscopic prostatectomy. It’s just something that’s very technically challenging and the robot takes a lot of those technical challenges out of the way. But absolutely comparing urinary function and probably sexual function in terms of our ability to accurately spare nerves.
and really do the finer aspects of that operation, which really is a delicate surgery, especially when it comes to the reconstruction portion of it. That really is where the robot shines in such a sort of narrow anatomic space. And what about for kidney cancers? Do we see the same kinds of things there? Certainly different concerns, right? When you’re talking about kidney surgery, we’re not talking about urinary continence or sexual function. But I can say certainly in my hands and I think in a lot of surgeons hands.
00:11:12.400 --> 00:11:15.400 specifically for a partial nephrectomy,

NOTE Confidence: 0.953192257142857

00:11:15.400 --> 00:11:17.704 doing that reconstruction especially

NOTE Confidence: 0.953192257142857

00:11:17.704 --> 00:11:21.240 if it’s in a difficult part of the kidney,

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00:11:21.240 --> 00:11:23.543 it’s very challenging to do some of

NOTE Confidence: 0.953192257142857

00:11:23.543 --> 00:11:25.719 the finer aspects of that operation,

NOTE Confidence: 0.953192257142857

00:11:25.720 --> 00:11:26.484 pure laparoscopic.

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00:11:26.484 --> 00:11:29.158 It can certainly be done open and

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00:11:29.158 --> 00:11:31.360 probably with the same efficacy open,

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00:11:31.360 --> 00:11:33.150 but then you’re talking about

NOTE Confidence: 0.953192257142857

00:11:33.150 --> 00:11:34.294 a fairly large incision,

NOTE Confidence: 0.953192257142857

00:11:34.294 --> 00:11:36.314 which for the kidney is either a

NOTE Confidence: 0.953192257142857

00:11:36.314 --> 00:11:37.826 big incision under the rib cage,

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00:11:37.830 --> 00:11:39.560 which can be fairly painful

NOTE Confidence: 0.953192257142857

00:11:39.560 --> 00:11:40.944 during the recovery process,

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00:11:40.950 --> 00:11:42.987 or a big incision in the midline.

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00:11:42.990 --> 00:11:45.710 So again, in those cases you’re looking at,
especially if you’re doing that surgery, open, a longer hospital stay, more postoperative pain medication requirements, narcotic use, and then you’re dealing with things like constipation and wound infection issues.

When it comes to some of those more complex cases, the robot is a major help. Talk a little bit about training. I mean when you were describing how a robotic case occurs earlier you mentioned that the patient is on the operating room table. There might be an assistant
at the bedside who’s kind of changing instruments in and out,
but the surgeon really sits at a console and manages the arms of the robot.
So if you’re a trainee, an up and coming surgeon,
how do you learn how to work the robot? It’s a great question and actually it’s somewhat hotly debated
and there’s a lot of interest in how residents and future surgeons should be trained.
Different institutions do it different ways.
I can tell you when I was a resident we had a protocol where as the resident,
X number of cases was to be at the bedside, being that bedside assistant. So you knew the steps of the case, you knew what instruments to put in and out, at which times and you really learned the operation. And of course you were watching the whole surgery as well.

There’s no real standardized way that residencies are doing it across the United States for instance. But again, there is a lot of exposure to that I think broadly in urology residency these days. And as the robot permeates more
00:13:30.280 --> 00:13:32.490 out into these community
NOTE Confidence: 0.9399230470585824
00:13:32.490 --> 00:13:34.350 hospitals and you have more robots
NOTE Confidence: 0.9399230470585824
00:13:34.405 --> 00:13:35.930 at the major medical centers,
NOTE Confidence: 0.9399230470585824
00:13:35.930 --> 00:13:37.690 there's just a lot more exposure to it.
NOTE Confidence: 0.9399230470585824
00:13:37.690 --> 00:13:40.516 So when residents are graduating now,
NOTE Confidence: 0.9399230470585824
00:13:40.520 --> 00:13:42.200 for the most part, they've seen
NOTE Confidence: 0.9399230470585824
00:13:42.200 --> 00:13:43.935 hundreds probably of
NOTE Confidence: 0.9399230470585824
00:13:43.935 --> 00:13:45.670 robotic procedures and many will
NOTE Confidence: 0.9399230470585824
00:13:45.725 --> 00:13:47.606 then go on to do if they want to
NOTE Confidence: 0.9399230470585824
00:13:47.606 --> 00:13:49.358 focus in oncology or in robotics,
NOTE Confidence: 0.9399230470585824
00:13:49.360 --> 00:13:52.192 they'll go on to do a specific fellowship
NOTE Confidence: 0.9399230470585824
00:13:52.192 --> 00:13:54.080 in minimally invasive surgery,
NOTE Confidence: 0.9399230470585824
00:13:54.080 --> 00:13:54.746 robotic surgery.
00:13:56.400 --> 00:13:58.746 We’ll pick up the
NOTE Confidence: 0.9346750875
00:13:58.746 --> 00:14:01.035 conversation with that right after we
NOTE Confidence: 0.9346750875
00:14:01.035 --> 00:14:03.635 take a short break for a medical minute.
NOTE Confidence: 0.9346750875

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Please stay tuned to learn more about the use of robotics and minimally invasive surgery for urologic cancers with my guest, Dr. Joseph Brito.

Funding for Yale Cancer Answers comes from Smilow Cancer Hospital, where their Melanoma program brings together an extensive multidisciplinary team to diagnose, treat, and care for patients with Melanoma and other skin cancers. Genetic testing can be useful for people with certain types of cancer that seem to run in their families. Genetic counseling is a process.
that includes collecting a detailed personal and family history, a risk assessment, and a discussion of genetic testing options. Only about 5 to 10% of all cancers are inherited and genetic testing is not recommended for everyone. Individuals who have a personal and or family history that includes cancer at unusually early ages, multiple relatives on the same side of the family with the same cancer, more than one diagnosis of cancer in the same individual, rare cancers,
or family history of a known altered cancer predisposing gene could be candidates for genetic testing. Resources for genetic counseling and testing are available at federally designated comprehensive cancer centers such as Yale Cancer Center and Smilow Cancer Hospital. More information is available at yalecancercenter.org.
robotics and minimally invasive surgery for urologic cancers.

And Joseph, right before the break you were talking about training of residents and fellows and you had mentioned that while there is no standardization for this training, frequently the resident will be at the bedside putting instruments in and out. They’ll get to watch the robotic surgery, but there’s a big difference between watching the surgery and actually doing the surgery at the console. So can you talk a little bit about how...
trainees actually gain that facility with using the robot at the console? Because it would seem that that’s really a major advantage of robotic surgery is the facility that the surgeon has with using the robot and the dexterity of its arms. Yeah, of course. I mean, with any surgical approach, surgical instrument, the surgeon needs to have familiarity with it, be able to use it safely and with the robot at most teaching institutions, there is basically a trainer console. So it’s almost in some ways like a
NOTE Confidence: 0.86953986
00:16:55.468 --> 00:16:58.120 driver’s Ed setup where you have the
NOTE Confidence: 0.86953986
00:16:58.120 --> 00:17:00.468 surgeon that has ultimate control over
NOTE Confidence: 0.86953986
00:17:00.468 --> 00:17:02.714 the robot and then you have a trainee
NOTE Confidence: 0.86953986
00:17:02.714 --> 00:17:04.260 who’s sitting at another console,
NOTE Confidence: 0.86953986
00:17:04.260 --> 00:17:05.970 usually next to or directly
NOTE Confidence: 0.86953986
00:17:05.970 --> 00:17:07.338 across from the surgeon.
NOTE Confidence: 0.86953986
00:17:07.340 --> 00:17:09.434 So you know the surgeon can
NOTE Confidence: 0.86953986
00:17:09.434 --> 00:17:11.230 essentially control the robot
NOTE Confidence: 0.86953986
00:17:11.230 --> 00:17:13.258 over to the resident or trainee.
NOTE Confidence: 0.86953986
00:17:13.260 --> 00:17:16.133 They can operate for a minute
NOTE Confidence: 0.86953986
00:17:16.133 --> 00:17:17.297 or a few minutes,
NOTE Confidence: 0.86953986
00:17:17.300 --> 00:17:18.800 the surgeon can sort of watch
NOTE Confidence: 0.86953986
00:17:18.800 --> 00:17:20.433 what they’re doing and then if
NOTE Confidence: 0.86953986
00:17:20.433 --> 00:17:21.589 something is happening that
NOTE Confidence: 0.86953986
00:17:21.590 --> 00:17:22.922 they don’t like or the surgeons
NOTE Confidence: 0.86953986
00:17:22.922 --> 00:17:24.070 ready to take control back,
NOTE Confidence: 0.86953986
00:17:24.070 --> 00:17:25.590 they can just go ahead and do that.
NOTE Confidence: 0.86953986
00:17:25.590 --> 00:17:28.068 So it gives the resident
NOTE Confidence: 0.86953986
00:17:28.070 --> 00:17:30.428 an opportunity to gain some skill,
NOTE Confidence: 0.86953986
00:17:30.430 --> 00:17:35.330 learn the robot while under a pretty
NOTE Confidence: 0.86953986
00:17:35.330 --> 00:17:37.430 closely supervised environment.
NOTE Confidence: 0.86953986
00:17:37.430 --> 00:17:39.103 The other thing I think is important
NOTE Confidence: 0.86953986
00:17:39.103 --> 00:17:41.212 to note is just that whenever you’re
NOTE Confidence: 0.86953986
00:17:41.212 --> 00:17:43.222 doing a laparoscopic or robotic surgery,  
NOTE Confidence: 0.86953986
00:17:43.230 --> 00:17:45.725 everything that’s happening is being
NOTE Confidence: 0.86953986
00:17:45.725 --> 00:17:48.220 broadcast onto essentially a big TV
NOTE Confidence: 0.86953986
00:17:48.292 --> 00:17:50.924 screen in the operating room and so
00:17:51.294 --> 00:17:52.386 not just the surgeon and the
NOTE Confidence: 0.86953986
00:17:52.386 --> 00:17:53.530 assistant can see what’s happening, 
NOTE Confidence: 0.86953986
00:17:53.530 --> 00:17:54.905 but really everyone in the
NOTE Confidence: 0.86953986
00:17:54.905 --> 00:17:56.690 operating room can see, scrub nurses,
the scrub tech, the anesthesia team. So in a lot of ways the resident and the surgeon really are more closely watched and observed than they would be in an open surgery. Let's take a step back for a moment as you had mentioned earlier, this is kidney cancer awareness month, so let's talk a little bit about kidney cancer. We had talked a little bit about surgery and you had mentioned that for some patients they require a total nephrectomy, others a partial nephrectomy. Talk a little bit about how those
decisions are made and kind of situate the treatment of kidney cancer in a multidisciplinary context,

Probably first it is important to differentiate between cancers of the cortex or outer portion of the kidney, or central part of the kidney. There are tumors that are both types of cancer, but different types and really managed in very different ways.

So when we're talking about
removing just the kidney or removing just a part of the kidney, usually we’re talking about those cortical renal, usually renal cell carcinoma being the most common type renal tumors. When we’re talking about the lining of the kidney, that’s a different type of kidney cancer altogether, what we call urothelial carcinoma or it used to be referred to as transitional cell carcinoma. It’s much more akin to bladder cancer really than it is to kidney cancer because the cell type that lines the
renal pelvis and the ureter is the same type of cell that lines the bladder. And so our approach to those cancers is generally different. Now sometimes we’re still removing the kidney for those renal pelvis tumors. But usually if we’re doing that, we’re also removing the entire ureter on that side. So taking that kidney tube that drains all the way down into the bladder and removing the entire thing and usually with a small portion of the bladder as well. So you know, again very different types of
cancer managed in different ways.

One thing I think probably bears bringing up is there are significant efforts afoot to try to spare removing the entire kidney and spare removing the entire kidney and ureter for some of these upper tract types of cancer.

We didn’t really have a lot of options until somewhat recently. Really in the past couple of years we were basically either doing that radical surgery or we were trying to manage what we could endoscopically, you know putting a camera up from below. Maybe doing biopsies,
maybe using a laser to try to ablate some of those tumors endoscopically, but really only so much we could do and again, only treating what we could see. We’ve just recently started using a type of chemotherapeutic agent called mitomycin, which has been used in the bladder for many years, but it’s been reformulated into a gel type of format. So the same medication but sort of suspended in a gel. And this has been approved since 2021, but this is can now be instilled
00:21:19.830 --> 00:21:21.909 directly into the kidney and for

00:21:21.909 --> 00:21:23.982 some patients offer them basically a

00:21:23.982 --> 00:21:26.070 nonsurgical option to try to treat

00:21:26.133 --> 00:21:28.436 and really ablate some of these lower

00:21:28.436 --> 00:21:30.468 grade tumors and save the kidney.

00:21:30.870 --> 00:21:34.790 Wow. I mean that sounds really remarkable.

00:21:34.790 --> 00:21:37.905 So because as you described,

00:21:37.910 --> 00:21:39.170 the surgery itself,

00:21:39.170 --> 00:21:41.270 nobody first of all would

00:21:41.270 --> 00:21:43.867 necessarily want to undergo a surgery period,

00:21:43.870 --> 00:21:46.696 even if it can be done with small little

00:21:46.696 --> 00:21:49.029 incisions using a laparoscope or a robot.

00:21:49.030 --> 00:21:51.190 But when you think about removing the kidney,

00:21:51.190 --> 00:21:52.735 removing the ureter,

00:21:52.735 --> 00:21:55.310 removing part of the bladder,
00:21:55.310 --> 00:21:57.704 you know that sounds rather extensive.
NOTE Confidence: 0.936228174
00:21:57.710 --> 00:22:00.146 If this can be treated with installation
NOTE Confidence: 0.936228174
00:22:00.146 --> 00:22:03.360 of a gel in the kidney that
NOTE Confidence: 0.936228174
00:22:03.360 --> 00:22:05.346 seems much more palatable.
NOTE Confidence: 0.936228174
00:22:05.346 --> 00:22:08.279 Talk a little bit about which patients
NOTE Confidence: 0.936228174
00:22:08.279 --> 00:22:11.086 are eligible for this and how exactly
NOTE Confidence: 0.936228174
00:22:11.086 --> 00:22:14.129 do we get the gel into the kidney?
NOTE Confidence: 0.9402536
00:22:15.410 --> 00:22:17.570 It is important to note,
NOTE Confidence: 0.9402536
00:22:17.570 --> 00:22:20.970 not every patient would be a candidate for
NOTE Confidence: 0.9402536
00:22:20.970 --> 00:22:24.288 this mitomycin gel installation.
NOTE Confidence: 0.9402536
00:22:24.290 --> 00:22:26.735 Really we’re talking about patients
NOTE Confidence: 0.9402536
00:22:26.735 --> 00:22:30.127 with low grade tumors of the renal
NOTE Confidence: 0.9402536
00:22:30.127 --> 00:22:32.695 pelvis and in some cases ureter.
NOTE Confidence: 0.9402536
00:22:32.700 --> 00:22:34.398 Generally speaking those are patients that
NOTE Confidence: 0.9402536
00:22:34.398 --> 00:22:36.540 have already had an endoscopic procedure,
NOTE Confidence: 0.9402536
00:22:36.540 --> 00:22:37.952 they’ve had a biopsy,
they’ve had pathology proving that diagnosis. So what’s done is usually it’s either instilled by looking into a patient’s bladder with the camera cystoscope and then putting a small open-ended catheter or tube up into the ureter up into the renal pelvis and then basically injecting this gel material up directly through that catheter can also be placed through a nephrostomy tube, which is a drain that goes directly into the kidney through a patient’s back usually and sort of instilled
in an antigrade fashion that way.

It's given as a series of 6 treatments once a week as sort of an induction phase.

If patients have a good response, which is generally judged by another endoscopic look up into the kidney, they might be a candidate for maintenance treatments, which would be once monthly for up to a year. That doesn't sound too bad. It doesn't sound perfect. It's not like it's a pill that you can take and be done with it. It's still somewhat invasive, but certainly not a surgery.

It sounds like both the cystoscopic...
procedure or the installation through a nephrostomy tube would be done as an outpatient basis, like a quick pop in and get your installation and leave. Is that kind of how that works? Yep, absolutely. You know, it has to be done, at least initially, in an environment where you can take some X-rays. We do fluoroscopic images to measure the size of the renal pelvis so we can calculate how much medicine we have to put in. And once you have that calculation, you can do it in the clinic. If you have fluoroscopic capabilities,
you could do it in a radiology suite.

In a patient with a nephrostomy tube,

once you have the volume of the renal pelvis,

even without fluoroscopy.

So yeah, I think to your point,
it is definitely not perfect,

but it is a better option.

I'll give you a great example actually.

So I have a patient,

the solitary kidney,

so he doesn't have an option.

He's actually already had his other kidney

removed for the same disease.

So we can't take his kidney out.

I mean we could,
but he’d be on dialysis probably for life. So kind of a perfect patient to offer something like this who really has no other options. And so how effective is it? I mean you mentioned that it was approved just in the last year or two. Do we have data that after a year of this maintenance therapy you’ve had a good response and maybe that’s the first question, what proportion of people actually have a good response? And then second after you’ve had this year of maintenance,
we expecting this to be durable long term so that you know that’s kind of one and done? Yeah. So like any other medication that gets approved by the FDA, this had to essentially prove its efficacy before that. So there are trials, basically two major trials we actually are seeing complete response in a fair number of these patients, I mean upwards of 50-60, even 70% which is remarkable actually. Again, I think we don’t really have 101-5 year data because it’s only
been out for a few years and it’s not a common disease so to speak. I mean statistically there are about 80,000 new kidney cancers per year, about 5% of those are these particular upper tract urothelial types, so not a huge number of patients, but you know, again, when you’re talking about the option of complete removal of the kidney and ureter, which is not just surgery and recovery from surgery, but is also the impact on kidney function long term, you know, renal insufficiency,
chronic kidney disease,
NOTE Confidence: 0.943913018181818
possibly even dialysis,
NOTE Confidence: 0.943913018181818
I think this is a good option
for the right patient.
NOTE Confidence: 0.94629164
Yeah, and regardless of whether
you go the surgical route
or the installation route,
I mean certainly some people aren’t
going to have the option of the latter
if they have a higher grade tumor.
NOTE Confidence: 0.94629164
Can you talk a little bit about other
therapies that these patients might require?
NOTE Confidence: 0.948879371428571
Can you talk a little bit about other
therapies that these patients might require?
NOTE Confidence: 0.948879371428571
I mean how often do these patients also
need systemic therapies or radiation?
NOTE Confidence: 0.937395028571429
Yeah, so radiation is not commonly used
really for either type of kidney cancer.
NOTE Confidence: 0.937395028571429
For those cortical tumors or for the upper tract urothelial tumors, it's interesting really has gained well I should say in the two different disease settings some footing. So for the cortical tumors of the kidney, like those solid renal tumors we discussed earlier on, there's been a lot of interest in using immunotherapy. So people might be familiar with that for things like lung cancer. And that's being used for metastatic disease for some time and now is gaining some use in patients with higher risk tumors that are completely removed for.
patients with that upper tract urothelial, the more bladder cancer type of tumor if you will. Those patients are sometimes treated with what we call neoadjuvant chemotherapy. So they may get chemo before their treatment. There’s a lot of debate about that, some of that’s extrapolated from bladder cancer data, but the challenge, of course, is once the kidney is removed, those patients may not be able to tolerate systemic chemotherapy. So often they will be seen by a
medical oncologist in concurrence with radiation perhaps, but usually it’s urology and possibly medical oncology.

Doctor Joseph Brito is an assistant professor of medicine and urology at the Yale School of Medicine. If you have questions, the address is cancer Answers at Yale dot Edu. And past editions of the program are available in audio and written form at yalecancercenter.org. We hope you’ll join us next week to learn more about the fight against cancer here on Connecticut Public Radio. Funding for Yale Cancer Answers is
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