



Life after Bladder Removal – Selecting your best urinary diversion

A candid conversation with Alexander Kutikov MD

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Part IV: Indiana Pouch and Question & Answer Session

Presented by



Dr. Alexander Kutikov is the Associate Professor of Surgical Oncology at the Fox Chase Cancer Center in Pennsylvania. He's a board-certified academic urologic surgical oncologist. They treat urologic tumors using minimally invasive, robotic, laparoscopic, and traditional surgical techniques. He's published chapters in leading textbooks, including the Definitive Chapter on Adrenal Disorders in Campbell-Walsh Urology, and has held leadership positions in both the American College of Surgeons and the American Urological Association. Dr. Kutikov has significant interest in harnessing web and mobile technology to improve patient engagement and quality of care. He's the co-founder of several ventures, and currently serves as Associate Editor of Digital Media for European Urology.

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Part IV:

Indiana Pouch and Question & Answer Session



Let's talk about an Indiana pouch urinary diversion. This is a urinary diversion that uses the right colon. I'm just going to bring this up and show it to you again. It, basically, uses this portion of the colon as the diversion. The appendix is removed. Then, a short segment of the small bowel is also used. What's really harnessed is that there's a natural bowel called an ileocecal bowel that basically prevents a stool from going back into the small bowel. It's a natural bowel, but we harness this in order to prevent leakage from this Indiana pouch. We're going to use this portion of the bowel to create a pouch that looks like this. Just to walk you through, this is the colon part, and this is the small bowel part, and over here is this valve that basically when urine fills, the pouch, the urine doesn't automatically leak out of this little stoma that's created.

Now, what I'm showing here is this stoma is created sometimes for ... Unfortunately, I treat very young women. Sometimes, not women with bladder cancer but with gynecological malignancies that need their bladders removed. Obviously, body image is very important at a young age, and they don't want to have a stoma, but they can't have a neobladder because some of the pelvic structures are removed. We hide this little nipple in the belly button. What patients do is that actually self-catheterize. They put a catheter into this what's called the catheterizable channel and they pop through that ileocecal valve, and that's how they drain this diversion.

Now, when this diversion works, it works incredibly well, but because this is colon, patients are more susceptible to infections. Just to show you this real quick, generally, if we don't put it into the belly button here, we basically swing this catheterizable channel into the right lower quadrant, so it sits right here. The biggest challenge here is that this diversion sometimes is associated with more infections, and it can be very frustrating postoperative, and really sometimes a lifelong issue for a patient where they get infections in this colon pouch. Most people don't, but some people do.

Again, I tell patients that this diversion is really associated with a lot of maintenance. You really got to make sure that you're catheterizing yourself regularly that, sometimes, you're gaining mucus in this pouch. Again, just to reiterate, some surgeons prefer the neobladder in women patients over this. Some surgeons prefer this. Again, it's a discussion with your surgeon, what they're most comfortable with, what their experience is, but it is definitely an option for the right patient.

Question & Answer Session:

Question 1: Does neoadjuvant chemotherapy actually help you to get the cancer to retreat or stay more condensed, so it's easier when you remove the bladder to reduce the risk that there's still cancer someplace else? Does that have any benefit from neoadjuvant chemotherapy?

Right, great question. Here's the debate about neoadjuvant chemotherapy. The concept is exactly what you just said, Stephanie, is that there are some very bulky tumors that are very difficult to resect with a negative margin, and the chemotherapy helps shrink those, and helps the surgery do a better job. There are also patients whose disease has spread to the lymph nodes or somewhere else in the body that we just can't tell with CAT scans, or with MRIs, or even with PET scans, but we know that there is a high risk that the disease has gone somewhere outside their bladder, and we know it's important to stop within its tracks. It's sometimes very difficult to give chemotherapy to patients after such a big surgery.

Neoadjuvant chemotherapy, chemotherapy before surgery, serves as its purpose. It basically increases the chances that the surgery cures, and also make sure that it eliminates maybe some of this microscopic disease that has already spread outside the bladder. Now, the big debate, and it still exists, is that some patients don't respond to chemotherapy. There is a risk that you're at that patient, and that

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you're receiving chemotherapy, but really delaying the treatment that's going to help you most, which is surgery.

At our center, we've tackled this and really a lot of centers are now adopting this approach is that what's called dose-dense chemotherapy. We basically give chemotherapy in a very short period. From the start of chemotherapy, we give this chemotherapy called dose dense AMVAC. My colleague, Dr. Elizabeth Plimack, whose very active in BCAN, was really one of the pioneers in this space, and it's basically a way to give chemotherapy very quickly.

When I see a patient with bladder cancer, and I tell them that they're going to get chemotherapy, from the first day that they start chemotherapy to the time of surgery, it's really 10 weeks. The general guideline is to get surgery within three months of diagnosis, and we're way ahead of that. Honestly, a big busy center, sometimes, it's very hard to get on the operating schedule before that date anyway. We're able to give chemotherapy, not delay surgery too much, and get the surgery as well. In experienced centers, chemotherapy is very well tolerated. It's not without risk, but it's generally well tolerated.

Now, this debate between neoadjuvant chemotherapy versus surgery directly was really addressed by the Southwestern Oncology Group prospective randomized trial where basically patients were given this scenario, and said, "We just don't know what's better, getting chemotherapy first or going directly to surgery." Patients signed up for this randomized clinical trial where half the people who walked the door where they got chemotherapy, followed by surgery, and half the people went through the door where they just got surgery directly. What we know from that trial is that there was a survival benefit. People lived longer if they got chemotherapy.

Now, some argue that the survival benefit wasn't big enough to use this for everybody, and some surgeons say, "Well, I'm going to give it only to the folks with bulky disease, and if they have a small tumor, I don't think that data applies." Again, it's a discussion with your surgeon. I, personally, think that it's very difficult for us to predict how deep and how bulky the disease is. The scans are just not that good. Because we can give chemotherapy very quickly at Fox Chase, if it's safe, if people's kidney functions allow it, I really encourage them to get chemotherapy first.

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Question 2: Is there a way to sleep through the night with an Indiana pouch or a neobladder that you can suggest?

Yeah. Initially, it's important to really get to know your diversions. Who I worry about most is patients who never leak. An Indiana pouch or a neobladder, they just never leak, and they say, "Doc, I've never leaked. It's great. I'm really continent." That's perfect, but I really tell those patients of mine that you got to be very careful. It's easy to overstretch. It's easy

to even potential micro-proliferate that diversion if you never leak.

What most patients have is, actually, a safer scenario is where they get too full, and they fall asleep. Into deep sleep, they just leak, and they just learn to say, "Okay, if I am too full, I do need to wake up at four to five hours, and just catheterize myself if I have an Indiana pouch, or just go and void if I have a neobladder." That's obviously a safer scenario.

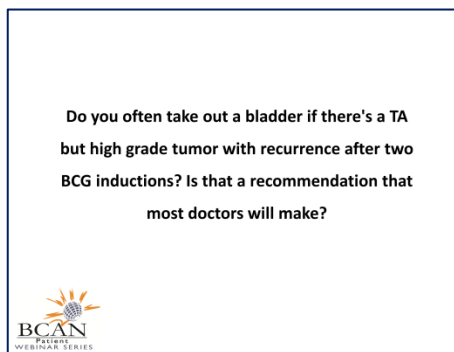
Now, what I'll tell you and I always tell my residents and my Society of Surgical Oncology fellows who train with me, I tell them, "If you look at people in the first six months after an ileal conduit versus a neobladder, the ileal conduits, they sleep much better." The neobladder patients sometimes are exhausted. They're just not sleeping. They're being woken up by the leakage, or they're being woken up by their worry, and it's almost like having a child while you're in the infant months where you're trying to figure out and learn the system. People do get a little bit exhausted in the beginning. When people are trying to decide, I always tell them that it's a harder diversion to get accustomed to.

Then, the other issue is that people get woken up, again, by just leaking because their diversion get too full, and they leak, and there's behavior modifications. You try to drink less before going to bed, or you try to just set the alarm and just wake up. That's a challenge with the continent diversion that sometimes you just don't know how it's going to behave and you just have to adapt to whatever capacity it has and the continence that it has.

Question 3: Do you often take out a bladder if there's a TA but high grade tumor with recurrence after two BCG inductions? Is that a recommendation that most doctors will make?

All this decision making is very nuance. Obviously, it's very difficult to give advice in a particular case, but, in general, patients in that group who meet criteria for BCG refractory disease, and they're candidates for cystectomy. Now, there are a lot of trials including here at Fox Chase that are now open to patients in that situation where we're trying other things. We have an immunotherapy trial open where we're trying to immunotherapy in patients in this situation where there are opportunities now that, I think, is worth exploring before you move forward with cystectomy.

Now, obviously, you have to use judgment, and you have to trust your provider. These trials are trials. We don't know what the outcomes are. It always depends on how much the disease is. I certainly have told patients, "Yes, you're a candidate for trial, but I just worry too much that you just have too much bulky disease in there. It's recovering rapidly. I think we should not risk and get this bladder out," but there's certainly now, in 2017, there are a lot more opportunities here to try to save this bladder than there were in the past.



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Is it possible to go back?



Question 4: I know you talked about the process when you're making that decision while you're actually doing the diversion that sometimes because of the circumstances you find, you have to come up with a plan B, and go with the second choice for the diversion, but this is an interesting question. Can you change from a neobladder to an ileal conduit if there was an issue or an emergency? Is it possible to go back?

The way he designed this neobladder is that it's there is a built-in mechanism that, for instance, most surgeons that do this enough, you have patients who have recurred. I've had patients who have recurred in their urethra, or at the connection here, and you have to remove the neobladder. Now, as you can see, this portion of the neobladder right here is exactly the same as an ileal conduit. You can basically bring this out as a stoma, and it's a relatively simple conversion from a Studer neobladder to an ileal conduit.

Now, not all surgeons use a Studer neobladder. Sometimes, it's a little bit more of a hassle, but this is a rare scenario, but if there's a Studer neobladder done, it's not simple, it's still a big operation, but it's straightforward to convert it to an ileal conduit because you basically remove this portion. Then, you take this out as a stoma.

Now, removing this portion can be challenging actually because it's all scarred in there, but there is a built-in strategy to how to convert this from a neobladder to an ileal conduit, and you don't have to reconnect the ureters. Again, there's connections that we all worry about. They don't have to be remade in this situation.

Question 5: There's a patient with graft kidney. Their native kidneys are gone. The kidney was installed over the left quadrant pancreas graft in the lower right. A very short piece of ureter. What would they have done there in terms of having their bladder removed? Also, the patient had Crohn's symptoms in the area of the IC junction. I'm not sure if you can answer that question because it sounds very specific but can you give your thoughts?

There's a patient with graft kidney. Their native kidneys are gone. The kidney was installed over the left quadrant pancreas graft in the lower right. A very short piece of ureter. What would they have done there in terms of having their bladder removed? Also, the patient had Crohn's symptoms in the area of the IC junction.



Right. It sounds like a very, very challenging case. Obviously, there needs to be a really multidisciplinary approach here where the transplant surgeons really communicate to the urologist. I would just make sure that you get your operative notes, so the urologist knows exactly the nuances of their anatomy there.

The one thing that I didn't mention that's very important to consider is overall renal function, patients with transplant and patients without a transplant. The neobladder and the Indiana pouch, they're not like your native bladder. What happens is in the native bladder, when urine is stored in the bladder, nothing gets resorbed back into the bloodstream. The bladder is actually designed to have no electrolytes, or actually no toxins come back into the bloodstream.

Now, the bowel is designed for the opposite. The bowel is actually designed to absorb things. Some of the toxins that the kidneys secrete and some of the electrolytes get resorbed back into the body. Now, if the kidneys are not functioning well, patients can go into kidney failure. It's important to consider one's overall kidney function when choosing a urinary diversion. Some patients with kidney function that's not adequate are just not candidates for continent urinary diversion.

Yeah, as far as that particular patient's case, that's a very challenging case that. Again, every patient in that situation is going to be managed a little bit differently. The Crohn's is, obviously, a challenge because you need to figure out which segment of bowel to use as a diversion. That's a challenging case where the transplant surgeons, the gastroenterologists who are managing the Crohn's, the urologic surgeon who is going to do this really needs to communicate, really need to understand the details, and then come up with the best decision. None of the options are going to be risk-free. Everything, there's going to be trade-offs, but that's a case that really needs individualized decision making there.

Stephanie:

Okay. That was a challenging question. Thank you so much for giving an answer. Again, it really does involve all of the different aspects of somebody's health as you saw in this really interesting visual discussion with all of these great tools that Dr. Kutikov has. This really is a complicated procedure, and there are so many other factors that the individual doctor who is performing the procedures need to consider as in any comorbidities or other illnesses that you have, and your wishes as well, and what they find was they go in. One of the things you mentioned earlier was talking about dyspareunia and pain when females have sexual intercourse sometimes because of the changes in their vagina with their bladder removal. I just wanted to let everybody know that we do have a number of resources. We have a number of previously recorded webinars, recent ones that were done specific to sexuality after bladder cancer.

Click here to access those resources: <http://www.bcan.org/sexuality-after-bladder-cancer-resources/>

