Life after Bladder Removal – Selecting your best urinary diversion

A candid conversation with Alexander Kutikov MD

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Part II: Ileal Conduit

Let's focus on the ileum for now. The most time-tested and the simplest urinary diversion is called an ileal conduit. What basically happens is the surgeon harvests a portion of this ileum, disconnects it from the rest of the bowel, and then reconnects the small bowel back together. Now, you have a portion that's not connected to the small bowel anymore. We use this as a conduit for urine to leave the body. This is what's called an ileal conduit. This is, basically, just a small piece of the small bowel that's connected to the ureters like this, and the tip of this is brought out as a stoma.

I'm going to go, and I'm going to show you what that looks like on the outside of the body. On the outside, you have it here. Let's say this was an open cystectomy, robotic open. We'll talk about that in a minute. It probably matters very little how it's done, but if that's the incision, the tip of that ileal conduit is here. It comes out as a stoma nipple that comes out to the right, generally to the right of the person's
belly button because the distal ileum lives in the right portion of your body. It's just an easier track for it to be brought out here. There's a few exceptions but, generally, they're here. They're on the right lower quadrant, what we call.

Obviously, this diversion requires an appliance. What I tell folks is when they wake up from the surgery, they have a drain. The drain is a window into the bowel sac there to make sure that everything is healing well. Just while we’re on this picture here, there are also diversion stents that patients wake up with. These diversion stents generally come out of the stoma like this, like little pieces of cooked spaghetti. These are generally removed by a week to three weeks after surgery, depending on surgical preference and certain specifics of the case, but what these do, I'll show you this in a minute, they basically help the ureters, the tubes, heal to the ileal conduit.

I'm going to go back to the other image here, and let me get the cystectomy stamp back on, which is right here. The ileal conduit looks like this. These tubes that I just showed, basically, they go from the kidney. The surgeon puts them in from the kidney. They go through the ureter. They transverse the anastomosis, which is a fancy way to describe a connection. The anastomosis, the connection between the urinary tract and the gastrointestinal tract. They come out of the body too, and they come out like this. I showed you the stoma on the other image. This is why patients wake up with these two little straws coming out of their stoma. Again, these are removed about one to three weeks, again, depending on the particulars of the case after surgery.

Now, just jumping ahead talking a little bit about the complications, and we'll talk about more in a minute, but one of the dreaded problems with these surgeries is this connection. You are connecting the urinary tract to the gastrointestinal tract, and five to 15% of patients, depending on whose series you look at, these connections stricture, and they basically close down with time. It's a very frustrating problem because everything is going well, and all of a sudden, patient gets an infection, or a fever, or just, incidentally, they get a scan, and you can see the kidney, what's called being hydronephrotic, having a dilation. The urine can't get out and the kidney swells. The kidney can deteriorate over time if that's left without a fix.

What's generally done is, first, a nephrostomy tube is placed. It's a tube that goes from the skin to the kidney. Then, generally, done in radiology, that stent that the patient had in the beginning is exchanged. The tube from the back is exchanged back into the stent. This can be a frustrating process because patients have to come back into the hospital, get antibiotics.
Once the stent is in, there’s two options. Some patients just choose to have the stent changed every few months, but sometimes, dilation is attempted in radiology, and sometimes the surgeon has to go back in and fix it. A very frustrating problem both for the surgeon, the patient, and just one of these realities of this very complex surgery where we’re taking the urinary tract and connecting it to the gastrointestinal tract. We’ll talk a little bit about other issues that could come up with this surgery but that’s one that everybody tries to avoid, and is very frustrating when this happens.

Let’s go back and talk about the other options that we have. The ileal conduit that I showed you is, again, the most time tested, the simplest. It’s the least time on the operating room table, the least time to heal, and the least complications. Now, obviously, the downside of having an ileal conduit urinary diversion is having to live with a urostomy bag.

Now, I’ll tell you that the quality of life that folks can have with a urostomy bag is extremely high. The goal is really to get people back to their lives. I tell my patients they can scuba dive and skydive with that bag. Not sure if anybody is really scuba diving with it, but I definitely have patients that go regularly swimming in the pool with these urostomy bags, and really live very, very full lives.

Actually, we’re going to talk about the continent urinary diversion. When surgeons first started doing them, really, everybody felt that that was a much superior diversion in terms of quality of life, but when you ask folks who live with an ileal conduit versus a neobladder or a continent urinary diversion, and ask them some quality of life questions, it was very hard to tell a difference between the quality of life that one has with an ileal conduit versus a neobladder.

I’ll be honest with you, those data taught us that, actually, the sense of disappointment that people have with their choice is actually higher with neobladders and continent urinary diversions because we think, probably, those were just, for a lack of a better term, oversold to them. They’re good diversions, and some people do incredibly well with neobladders, and for some folks, that’s the best choice, but I think people need to go into those diversions with their eyes open, and know that there are still challenges with the continent diversion.