Urodynamics and the IVS Tunneller™

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Harry Reich, MD: “I’m Harry Reich, Vice-President of the ISGE and we’re at the 12th annual meeting of the ISGE. At this moment I’m getting the chance to talk with Tim McKinney, who is one of the leaders in laparoscopic pelvic support and other pelvic support and urogynecological operations. So Tim, tell me about this new procedure, the IVS Tunneller.”

Tim McKinney, MD: “Well, thanks for having me here to talk about this, it’s pretty exciting actually, something new that we’re able to add to the armamentarium of vaginal support. It’s still rather novel in the States. There have only been about 100, maybe 100 plus, procedures done in the States; however, this is not a new procedure over in Europe.”

Harry Reich, MD: “What condition would you use this for?”

Tim McKinney, MD: “It’s basically used for any kind of significant apical prolapse of the vagina, high rectoceles and enteroceles; it adds a little extra support in the posterior wall and it’s kind of mimicking the TVT for the posterior wall.”

Harry Reich, MD: “Nice.”

Tim McKinney, MD: “A simplified way in which to do a vault suspension.”

Harry Reich, MD: “So this would take the place of a sacrocolpopexy-type procedure or not quite?”

Tim McKinney, MD: “It’s supposed to be mimicking and handling where a sacrocolpopexy or sacrospinous fixation would do, only it doesn’t get quite the apical support that those two procedures would give, but gives a satisfactory result for those patients with some apical support but with an enterocele or rectocele.”

Harry Reich, MD: “I think the big question here is, is it easy to do? Do you think most gynecologists would be able to incorporate this into their surgical armamentarium?”

Tim McKinney, MD: “Well, I tell you, Harry, I was really nervous when I began with the procedure. I ended up having to be convinced of the anatomy and where we were placing this was a safe procedure and started doing it first on cadavers just to make sure for myself and understand where we were passing these little tunnellers and we’re actually coming about two centimetres lateral to the anal sphincter area at about the 4 o’clock and 8 o’clock positions, we’re moving through the pararectal fat space and coming up parallel to the iliococcygeus muscle and then coming out just at or above, above meaning anterior, to the ischial spine. In looking at the anatomy there, we are avoiding most of the blood supply that we would be worried about where this thing is going. At the ischial spine, we have to worry that one centimetre below and lateral to the ischial spine, we have the pudendal nerve, artery, and vein. We’re above that by at least a centimetre.”

Harry Reich, MD: “So like you said, this is a posterior TVT where instead of checking the bladder at the end, you check the rectum during the procedure and at the end.”
Tim McKinney, MD: “Right.”

Harry Reich, MD: “Now, let’s go back to the beginning. How do you work up a patient who has this potential problem?”

Tim McKinney, MD: “Essentially, the patient would come into the office, you do your usual physical exam, identify any of the defects that are going on, whether they are anterior compartment defects, posterior compartment defects, you do your entire procedure to identify where each of the hernias of the pelvic floor are and then at that point, we end up trying then to identify what we need to end up as our outcomes. What we’re trying to end up doing is mimicking what our results would be afterwards, so we have to look for occult problems that may develop after we repair the prolapse. The biggest one that I worry about is changing somebody’s quality of life by creating a severe incontinent problem post-operative. When you take the kinking out of all the tissue from the hernia, bring it all back to its own position, you can leak like crazy, and it would drop their quality of life substantially.”

Harry Reich, MD: “So for many of these people, you would have to do some anterior work, also.”

Tim McKinney, MD: “You do anterior work at the same exact time. You also want to think about doing some form of diagnostic work-up, including urodynamics procedures, to be able to identify those patients with an incontinent problem, also urge and frequency. Peter Petros, who had brought this procedure into existence, has shown some promising data that there is actually a decrease in some of the urge and frequency that has developed in these. If you have ever worked in incontinence, when you work on the posterior wall, it affects the anterior functionality, as well.”

Harry Reich, MD: “I see you have a little catheter here. What is that all about?”

Tim McKinney, MD: “Harry, I ended up through the years of doing urodynamics being rather frustrated with the technology that was out there and I was trying to come up with something that was a lot easier to use, that would enable the average physician that was out there who maybe doesn’t do ten to fifteen of these a week, maybe does a couple of these a month, to be able to have a plug and play technology. I also wanted to have the most accurate type of a diagnostic tool for their hands and so I came up with a diagnostic tool: it’s the first urodynamic pressure catheter and is called a T-Doc Air Charged Catheter. It has a circumferential balloon that allows for pressure to be measured as an average pressure throughout the entire environment. This one in particular has two sensors, one that goes into the bladder, and one that stays in the urethra. We also carry one that will measure pressures in the rectal region. It’s plug and play. These hook into your standard urodynamic equipment, which can cost as little as $6,000 to $7,000 to get a system that can do all the functionality that you need to get the billing into your office.”

Harry Reich, MD: “So this would be an office procedure?”

Tim McKinney, MD: “Absolutely.”

Harry Reich, MD: “How long does it take?”

Tim McKinney, MD: “It takes about twenty minutes to a half an hour for the procedure. The beauty of it is reimbursements in the States are increasing on a yearly basis. One of the few rare things that is.”

Harry Reich, MD: “It’s got to be one of the only procedures where that’s possible.”

Tim McKinney, MD: “It’s true because the government really wants to drive people to start doing work-ups for pelvic floor prolapse and incontinence because it is such a major epidemic problem. By the year 2030, there’s going to be 40 million patients with some form of prolapse which, right now, the statistics are 11% are needing operations. 11% means that you have 9 million operations, between re-operations and operations.”
Harry Reich, MD: “We know there are all these problems with urinary stress and continence, but what about vault prolapse and the posterior wall? Is that also as common?”

Tim McKinney, MD: “That is the thing that we’re talking about, Harry. This is endemic for having larger babies delivering vaginally, we’re having people who aren’t tolerating living through life with everything hanging out, with quality of life going down the tubes, not having the sexual functionality that they’d like to have, so they’re addressing the problem more and more. This IVS Tunneller™ allows us a 15 to 20 minute procedure to augment the anterior or the posterior wall. You do have to repair all the other defects associated with the pelvic floor at the same time, but it gives you an anchoring point which is rather substantial so that it is not going to fall down past that.”

Harry Reich, MD: “So if you have the TVT and this other procedure in your surgical armamentarium, you have a patient who needs work in both situations, approximately how long would that operation take, doing the anterior area and the posterior?”

Tim McKinney, MD: “If you were at specific sites that were taken care of and addressed just by the IVS Tunneller™ and then the TVT aspect, which this can actually be plugged in or a lot of people are using the same instrumentation for doing the TVT side of things, it would take under an hour to do the entire procedure. The easier part of the IVS system is that you can actually palpate the entire length of where this tunneller is going, so you can place your fingers in vaginally and you can march it right up to your finger at the ischial spine and pass it out and that is the positive aspect of it.”

Harry Reich, MD: “Nice. Is there anything else that you would like your audience to know about both of these situations?”

Tim McKinney, MD: “Well, I think as far as the catheter situation and prolapse and incontinence, it shouldn’t just be a fact of whether or not you are going to incorporate these things into your practice. It’s how much you want them to be a part of your practice because with that many cases being out there, you have to be taking care of them and you better get it into your head that you want to do this in the most appropriate fashion. So work them up thoroughly and get hold of a urodynamics system. The reimbursements from Medicare alone are close to $800 per procedure. I get paid, in some instances, over $1,000 just for the urodynamics. But with the machinery out there under $7,000, it pays for itself quickly. A disposable catheter system like this makes it a plug and play situation, makes it easily incorporated into your practice, hook it up, toggle it, flip the switch forward and you’re measuring pressures. It’s as simple as that, no hanging of IV fluids and getting air bubbles out or microchips and antiseptics to end up sterilizing your equipment. So you can add this to your office armamentarium. It’s easy to learn, it’s not as complex as you may think and does get reimbursed at a very good rate and you can do a wonderful job for your patients at the same time in improving their quality of life.”

Harry Reich, MD: “It sounds like this is one of the directions many gynecologists listening in should be very interested in learning more about in the future, so thank you very, very much, Tim, for all that information.”

Tim McKinney, MD: “Thank you.”

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