Bowel and Bladder Management following TM

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Presenter: Janet Dean, CRNP | Johns Hopkins University School of Medicine

Transcription from presentation available at https://youtu.be/nKSRJV2oeko

[00:30] So I am going to be talking about bowel and bladder management after Transverse Myelitis and it’s a big topic to cover in 25 minutes so I have tried to compress it and hit sort of highlights and then give you some resources for working on this topic on your own and your own health care professionals. So the first thing is I don’t have any disclosers, any financial disclosers to anything. I don’t know if we have to do it for this conference but we have to do it for any other professional conference.

[01:07] So the first thing I want to do is talk about is some objective to describe some differences between a spastic and a flaccid bowel and bladder function. I want to provide basic information on bowel and bladder management. Then give you tools to talk about these issues with your health care professional. To be able to develop bowel and bladder management programs that work for you.

[01:31] So first I just want to talk a little about normal bladder and bowel function. So in for the bladder you know very simply there is a storage area which is the bladder which is also called the detrusor muscle there is an outlet valve which is the external urinary sphincter and with normal bladder function when the bladder fills up with urine or distends it sends muscles to the spinal cord, signals go up the spinal cord to the brain, the brain decides what to do and sends signal back down the spinal cord to the bladder and generally the decision is to either to store urine or to release urine. Bowel function is pretty similar there is a storage area at the bottom of your digestive tract and that’s called the rectum and there is an outlet valve that called the external anal sphincter and generally with normal bowel function when stool comes into the rectum and the rectum distends it triggers both a urge to defecate and a holding reflects. And again, the signals go from the rectum up to the spinal cord to the brain and they decide what to do and send it back down and again, hold stool or release stool if it is the appropriate time and place.

[02:45] So Transverse Myelitis as we all know is one of the auto inflammatory conditions but the important thing to remember is that TM causes the spinal cord injury, you can have spinal cord injury from a car accident or TM is another way to cause and spinal cord injury. And the problems with bowel and bladder management are a consequence of that injury to the spinal cord. And because TM is so rare, when you go to the urologist or the gastroenterologist and say I have TM they will go: “Huh, I don’t know what to do.” But if you go to them and say: “I have a spinal cord injury cause by TM and as a result I have a neurogenic bowel and bladder.” They may have a better idea what to do because spinal cord injury is not as rare as TM. So that’s what I really suggest to patients and for all aspect of your care for your Spasticity or other things. Just remember if you tell people that you have a spinal cord injury they may have a better understanding of what to do.

[03:48] So Transverse Myelitis changes bowel and bladder functioning, it disrupts sensation of having to urinate or having a bowel movement, it disrupts the coordination between the brain and the bowel or bladder, voluntary control of the sphincter is often lost and it obviously changes the way you go to the bathroom. So there are two different problems that Transverse Myelitis or spinal cord injury causes with bowel and bladder function it depends basically on the level of your injury and also depends on the completeness of your injury. So if you have higher level of injury above T-11 you are going to have a
spastic bowel and bladder function. If you have lower level of injury, kind of T-12 and below you going to have a flaccid or areflexic neurogenic bowel and bladder. So for the spastic type problem the bladder is spastic and irritable the urinary sphincter is tight and does relax voluntarily so you have difficulty both storing and releasing urine. For the bowel, it’s similar with a higher level of injury you can have impairment of your digestive tract, your rectum will hold stool the anal sphincter is tight and doesn’t relax and so you have difficulty releasing stool.

For lower the flaccid or areflexic neurogenic bladder the bladder it will fill with urine but it’s unable to contract when it becomes full and the urinary sphincter is often laxed and it fails to contract, so patients with this type of bladder have difficulty storing urine and the bowel is similar the rectum hold stool and the anal sphincter is loose and has difficulty holding stool.

So with a spastic bladder problems that are associated with it when the bladder tries to distend it becomes spastic and that causes urinary and causes urgency and frequency and causes incontinence. And there is also a problem called bladder sphincter dyssynergia or detrusor sphincter dyssynergia you will see in reports from your doctor and that is when the bladder contracts, if you can often voluntary relax the sphincter but with spinal cord injury the bladder will contract, the sphincter will contract so you can’t release urine.

So that besides difficulty causes difficulty initiating or maintaining a stream of urine or as it’s more severe you are unable to empty your bladder. And the big problem with that is there is a risk if your bladder is spasm and you can’t release urine that urine reflux back up into your kidney’s and over the long run will cause kidney damage and that’s really something that we are wanting to prevent especially when I am working with children who have a long life I don’t want them to have renal failure as they get older.

With a spastic bowel, the rectum will distend, the anal sphincter will tighten and you are unable to release stool and that can cause constipation or impaction where stool get back up back up in your digestive tract.

For flaccid or areflexic issues again the bladder is very relaxed and it doesn’t contract, it over flow with urine, the sphincter fails and urine leaks out and that happens often in this type of bladder any time you cough or sneeze or push a wheel chair or play sports anytime your abdominal muscles are contracting and the bowel is similar the stool often leaks out when you cough or sneeze or do activities.

So how do you know what type of bladder that you have? So the best way for the bladder is to have a urology evaluation. And urodynamic studies are systematic studies are the gold standard for determining whether you have a flaccid or a spastic bladder. A voiding system urethrogram I call a poor man’s urodynamic that can show a little about of your bladder capacity and it also can show whether urine is reflecting into your kidneys. And a renal ultrasound also can show some about reflux but it can also show that you don’t have bladder stones or kidney stones or something like that.

And for the bowel, figuring out what type you have you really need your health professional to do a rectal exam and I can’t tell you how many people come and nobody done a rectal exam and they been given recommendations on how to manage the bowel and bladder and it’s, it’s pretty impossible to get good recommendation without that. So your health professional is going to check for sensation, sensation that you actually have in the anal sphincter whether you can or cannot voluntarily contract...
that sphincter and there also looking at the tone of the sphincter is it spastic or is it lax. And for the bowel really other G.I. exams are not really necessary. So if you haven’t had a formal evaluation you can tell some by your level of injury and you can tell some by your lower extremity muscle tone to make a guess but it doesn’t always correlate, I have a little girl that I am seeing right now who is as spastic as you can be in her lower extremities but her bladder is not spastic which is, I was very surprised. So it doesn’t always correlate especially at the level of T-12, L-1 you could have problems of spastic or flaccid so it take a little bit of figuring out.

[10:02] So how do you manage bowel and bladder neurogenic bowel and bladder? First off healthy habits you need a healthy diet especially fluids, so you need to drink, drink, drink. If you are having neurogenic bladder you need to spread that out over the day to cut down on incontinence or leaking. For your bowel, drinking fluids is really important, getting fiber in your diet is also really important, but if you are going to take a fiber supplement you have to drink otherwise its cement, OK so keep that in mind. Fiber is really good for bulking up and holding fluid in stools but if there is no fluid it’s bad.

[10:47] Activity is real important moving around keeping things moving in your digestive tract it’s also good if you are moving around because urine’s not just sitting in your bladder it’s moving and sloshing around in there, which is better. Good hygiene is also important, making sure you have good hand washing and if you can do it yourself, take care of your bowel and bladder yourself that’s the best thing because nobody else is transmitting their bacteria and bugs to you and back and forth. So that is always the best way to cut down on problems with infections. And there is a lot of assistive devises that the occupational therapist can help with. Having good positional equipment so that you can be comfortable sitting for your bowel and bladder care if at all possible is good. And then if you can’t do your own care, being able to direct your own care and making sure your helpers are washing their hands and doing things the way you would like it to be done.

[11:55] So bowel and bladder programs the goals are we want to prevent incontinence and accidents, we are looking to empty the bowel and bladder at predictable times to decrease accidents and we want to maintain your health to prevent complications. I want to say to that having a bowel and bladder program which I am going to talk about next and using medications or intermittent catheterization or things does not impair recovery in fact it normalizes bowel and bladder functions to give you a better chance at recovery and often times I have people come and say; “Oh but that’s the last resort I want to do that, I just don’t want to do that bowel program or that bladder program.” And really to recover your bladder and bowel function it’s far better to do a bowel and bladder program that will normalize or simulate as much normalcy in your bowel and bladder function as you can.

[12:54] So for a spastic bladder, and there is a spectrum as to how severe it is but it usually cases frequent and urgent urination and so in order to decrease the frequency and urgency medications are often used to relax the bladder. So the most common medicine is Oxybutynin, it’s the one that’s been around the longest there is lots of preparations and there is lots of other medications that can be used. And then depending on how relaxed the bladder gets, and that may be necessary to prevent having reflux to prevent your bladder from getting inelastic we may relax the bladder so much that you can’t urinate because your bladder won’t contract. And so once we do that to prevent complications then you would need to do intermittent catheterization, which is putting a catheter through the urethra into the bladder empty the bladder and taking the catheter out. And generally, that’s done every four hours while awake, five times a day.
[14:09] For a flaccid bladder which has frequent leaking of urine, medications are generally not effective and intermittent catheterization can be done to prevent leaking and accidents and it may be needed to be done more frequently, every three to four hours and people that have this kind of a bladder problem often cath before they do activities that they know will cause problems, if they are going to play sports or they are going to be contracting their abdomen, if they are going to a funny movie they are going to cath before they go to the movie theater to try and prevent that.

[14:53] So for incomplete bladder management sometime low doses if sometimes you are having urgencies and frequency and are not doing a cath program low doses of medication to relax the bladder can be used. There is also medications that can relax the sphincter if you have problem with your sphincter can be tried low doses to see if we can relax the bladder enough so you don’t have so much urgency but not enough so you cannot urinate. And then people often have frequent voiding, frequent have to go to the bathroom, find a bathroom, know where the bathroom is wherever you are going to prevent that. And I was going to say if you had a spastic bladder and you are wanting to manage your bladder in that manner you have to be sure again that your health professional has told you that your kidneys are safe, because if you are trying to manage your spastic bladder without really relaxing it again you run the risk of your bladder becoming reflexing becoming very small and inelastic so it won’t expand to hold urine.

[16:04] So other options briefly and there is a resource at the very end that really explains different kind so options, intermittent catheterization is the best way if you need assistance emptying your bladder. For men, especially with the lower motor neuron with the flaccid bladder can use a condom catheter with a leg bag, an indwelling Foley catheter can be used but it’s not recommended because there is damage to your urethra, so if you put a catheter in and leave it in. If you are unable to do intermittent catheterization yourself and want more independence a suprapubic tube can be done. It’s a reversible and relatively minor surgery where a permanent tube is directly put into your bladder and that drains urine out. Either you can clamp it and drain it out every four hour like you were doing intermittent catheterization or you can drain it into a leg bag. And this becomes important if you don’t have good dexterity and you can’t manage your clothing and you need to be independent, I have kids that are going to college and are needing to be able to be more independent and not have somebody with them every four hours. So that’s something that can be used. And again, if it is not working it can be completely reversed.

[17:32] Another is a catheterized stoma, this is done more in children but it is a more major surgery which puts a stoma into your bellybutton that you can put a catheter in and take in out and it doesn’t leak. So and the suprapubic tube can cause a higher amount of urinary tract infections because something is in there all the time and there is a long term increase risk of bladder cancer having something in your bladder all the time.

[18:01] So spastic bowel management, you have urgency and frequency, you may get to the toilet but have problems releasing stool, and if you are trying to use a Valsalva or bearing down to contract abdominal muscles you are pushing against a tight sphincter. For the flaccid pattern, the rectal sphincter won’t hold stool, you may have frequent leaking of small amounts of stool especially with activities that cause Valsalva or bearing down.

[18:35] So for bowel programs, to manage bowel it takes a lot of planning and a lot of routine to make sure you are emptying your bowel at the same time every day. It’s best done every day to every other
day. Adults often do their bowel program in the morning because they have activities in the evening. For kids, often, the bowel programs are often done in the afternoon or evening because families are often getting kids off to school in the morning it’s much more hard to do. The program should take 15 minutes to an hour to an hour and a half sometimes even and ideally is done after a meal or a snack, you have a gastrocolic reflex when you put something in your mouth it starts to go through. And generally, a bowel program is a combination of medication, manual disimpaction, and digital stimulation. You need to work with your health professional to develop a program that’s going to work for you. And there, I am going to talk about a basic bowel program and you’re going to need to modify it and get some guidelines and all the medications that are used for bowel programs are over the counter medications so what should happen is your health professional should teach you how to use the medications and then you are going to have to experiment and get a program that works for you.

So the first thing we are going to want to do is manage stool consistency and diet is a way to do that to keep your stool at a good consistency, as I said a fiber supplement and fluids and there are medications that do that Docusate sodium is one the most usual ones people most often use Polyethylene Glycol, MiraLax or Doculax at low doses can be used to soften stool, and then you want to promote digestive motility particularly with the higher lesions, Senna is most commonly used for that and then add a little Polyethylene Glycol at a high dose can also promote G.I. motility, if you use MiraLax or any of those at too high a dose it’s a laxative and will cause you to have diarrhea.

Positioning is real important if you can sit up on the toilet or a bedside commode is the best to let gravity help, if not laying on your left side is the best way the best position to be in, if you have children that have neurogenic bowel or bladder make sure and even for your grandchildren for kids to have a bowel movement they have to have their feet on something it’s like potty trained kids and have them dangle from the toilet it’s not the best way because you can’t use any Valsalva or pushing with your abdominal muscles, so make sure your kids have a foot stool and they are comfortable and they are not sitting on a big toilet and they are afraid they are going to fall in.

And so what is manual disimpaction? It is using a glove a well lubricated finger inserted into the rectum to break up and gently remove stool if needed. Digital stimulation is when you insert again a gloved well lubricated finger into the rectal sphincter and gently rotate it is not stretching the sphincter open its triggering reflex evacuation, so it is just gentle circles in the rectal sphincter or anal sphincter. And also to trigger evacuation is rectal medications stimulant medication generally that could be a Bisacodyl Suppositories or there is another called the Magic Bullet suppository which you can buy online which works quicker and then Enemeez Mini enemas which are little ampoules that you can use to trigger evacuation

So for a spastic bowel program, just this is very simple it is the most simple program and at the very end there is a resource on bowel and bladder program and it’s detailed step-by-step so you can use that if you need to. So a bowel program could be every one to three days, I generally recommend every other day at least. For spastic bowel, you want soft formed stool, ripe banana is the best consistency and you are looking to trigger a reflex evacuation which would be digital stimulation and or suppository.

And for a flaccid bowel program often people need to empty the bowels one to two times a day to avoid incontinence with that type of bowel you want to have more firm formed stool so it is easy to remove but not easy to leak and as I said manual disimpaction one to two times and I had folks that tell me before I go play wheel chair basketball I make sure that my rectal vault is empty.
Suppositories generally don’t work, digital simulation may or may not work and again if you are right at that kind of level T-12, L-1, T-11 you will have to experiment to see what could work it could go either way at those levels. So the program would generally be for a spastic bowel if you manually remove any hard stool you would get in the way you are going to manually remove that. People insert a suppository generally wait 5 to 15 minutes and its again your customization and then start doing digital stimulation every 5 to 10 minutes and do that three to four times.

For a flaccid bowel you want to manually remove stool from the rectum you can try digital stimulation. Some people with incomplete injuries that have good abdominal muscles can bear down and push stool out but you have to use caution because over a long time if you are doing that you can have problems with hemorrhoids.

And then how do you know when your bowel program is done? For the spastic bowel if there is no stool in the rectal vault after two digital stimulations if you are getting mostly mucus and no stool and then the rectal sphincter will generally tighten up again when it’s empty. For a flaccid bowel is the rectal vault empty.

So for incomplete injuries where people have abdominal muscle function where you have sensation of the urge to go you can work to have stool consistency and managing motility as I said before, it’s best to have a bowel program so you sit on the toilet at the same time every day after a meal or snack and try to have a bowel movement so it is using a bowel routine without use medications or suppositories. You may need to sit for a longer period of time especially if you have that spastic rectal sphincter and sit and take time to relax and use abdominal muscles to push stool out.

For the flaccid bowel, I am sorry so for other options for bowel management there is information on this available for people that have a flaccid bowel there can be a Cecostomy done where a valve can be placed usually by intervention radiology into your digestive tract that allows you to do an enema from above, this is generally a large volume enema to flush stool out, it’s a completely reversible procedure so if it doesn’t work for you, you can take it out. There is also another procedure called an ACE procedure where they use the appendix to make a permanent tract that goes from the surface of the skin into your cecum where again you can do an enema you take the catheter out and the sphincter closes, that usually done it’s a tiny little thing in the abdomen.

And then there is a new enema system that has come out that has a balloon to help hold the fluid in on the enema introducer and Johns Hopkins urology department is doing training with that and that’s something that can be also tried and again that’s, I would say if you are thinking about doing an enema from above you might want to do the Peristeen system to see if an enema from below will work.

With a spastic bowel, I think you need to use caution with any of these other procedures other than the Peristeen enema system because you are putting fluid in but you still have this spastic rectal sphincter this kind of program is as not very, as successful with people who have this spastic bowel. The Peristeen enema system and I have not used it yet with patients I have had it demonstrated and the Peristeen system says that you can use it with people with a spastic bowel and it can be effective. And the Peristeen system isn’t a new system it’s been used in Europe for quite some time, so there a lot of experience with it over there and I think for the right person this may be a good way to empty your bowel.
So all right so I tried to cover a brief and basic overview of bowel and bladder management, I encourage you to work with your health professionals you have to be patient for bowel programs to find one that works for you. And the resources here so the “Neurogenic Bowel: What You Should Know” (note1), it been around for a long time and it’s done by the Spinal Cord Injury Consortium it’s free you can get it at the Paralyzed Veterans of America website you can down load a free copy by just putting in your name and address and they send you stuff all the time for donations but it’s a very good book and it’s the consumer guide, there’s a guide for professionals, there’re guides for consumers. The Neurogenic Bowel book that goes step-by-step through flaccid bowel, spastic bowel programs it tells you all the different medicines and how they work so you can troubleshoot your own bowel program.

The “Bladder Management Following Spinal Cord Injury: What You Should Know” (note2) that doesn’t talk about anything step-by-step like an interment catheterization program or anything but it’s very good at telling you about options for managing bowel and bladder after a spinal cord injury if interment catheterization or things like that don’t work it gives you the pro’s and con’s and people tell you their stories so that is also a very good resource.

That’s it. Thank you.
