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Low anterior resection syndrome (LARS)

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Low anterior resection syndrome (LARS) is a group of stars of side effects, for example, fecal incontinence or earnestness, visit or divided solid discharges, exhausting challenges, and expanded intestinal gas, that happen after a sphincter-saving resection (ie, front resection) of the rectum. An estimated 25 to 80 percent of patients develop LARS following a sphincter-sparing rectal surgery. After a sphincter-sparing rectal resection, we suggest pelvic floor muscle training with home Kegel exercises for all patients. Additionally, those who have a protective stoma that is not expected to close within one to two months should also receive daily or two- to three-times-per-week enemas or anterograde colonic irrigation via the stoma. LARS should be suspected in patients who develop one or more bowel symptoms after undergoing a sphincter-sparing resection of the rectum. The diagnosis is confirmed after the symptom(s) persist for one month after surgery and an evaluation fails to elucidate an alternative etiology. At one month after the initial surgery or after the protective stoma is closed, patients who have persistent bowel symptoms should be formally evaluated with one of the patient questionnaires such as the LARS score. Further treatment options are dependent upon the LARS score. Although anorectal/colonic manometry is not required to diagnose LARS, it can be helpful in monitoring patient response to treatment, especially for major LARS. For patients with minor LARS (LARS score <30), we suggest medical treatment rather than more intensive or invasive modalities of therapy. For patients with major LARS (LARS score ≥30) we suggest intensive multimodal therapy including transanal irrigation and pelvic floor rehabilitation. At one year, patients who continue to have major LARS should be offered a trial of sacral nerve stimulation (SNS) in addition to continued transanal irrigation and pelvic floor rehabilitation.

What causes Low Anterior Resection Syndrome (LARS)?

One type of treatment that can be effective for curing colorectal cancer is low anterior resection surgery. This involves removing portions of the colon containing cancer cells and connecting the remaining parts of the colon, leaving only healthy cells. Rectal cancer patients may undergo resection of part, or the entire, rectum (the last 6-8 inches of the large intestine), which can lead to a collection of symptoms known as Low Anterior Resection Syndrome (LARS).

Low anterior resection syndrome can occur after resection surgery to the lower part of the colon. After the resection or removal, of the part of the rectum containing cancer cells, your surgeon will perform an anastomosis, or “hook up,” of the colon. Anastomosis means that the two remaining ends of the large intestine and the rectum are sewn or stapled back together, resulting in a shorter colon, which leads to the symptoms that make up LARS.

What is Low Anterior Resection Syndrome?

- With such a major surgery, side effects are not surprising. LARS refers to several related symptoms that patients may experience post-surgery. The symptoms of LARS are different for everyone, but could include:
- Frequency or urgency of stools, largely due to the fact you have less space to store stool after removing part of the rectum
- Clustering of stools (many bowel movements during a few hours)
- Fecal incontinence (lack of control over bowel movements)
- Constipation for more than a few days, followed by multiple bowel movements a few days later
- Increased gas
- Abdominal pain
- Small risk of urinary and/or sexual function due to nerve damage

Research and Treatments for LAR Syndrome:

Much research has shown that the pathophysiology of LAR syndrome seems to be intimately related to neorectal compliance and capacity, and research on surgical techniques to improve these parameters, particularly with the success of the J-pouch as a functional improvement has supported this hypothesis. However, little attention has been focused on the autonomic innervation of the colon and rectum, the differences in motility patterns that exist between the colon and rectum, and how, functionally, the colon and rectum rely on sympathetic and parasympathetic function to varying degrees.

Involuntary control of the distal colon and rectum is regulated by the autonomic nervous system and enteric nervous system. The autonomic nervous system is further characterized by parasympathetic and sympathetic components.

How do you manage LARS?

- There are ways to manage LARS, but finding the right regimen can be challenging, as management is extremely individualized – what works for one person may not work for another. Here’s a list of some ways people manage:
- Kegel exercises to help to strengthen muscles. (To do this, tighten your muscles like you are trying to hold back a bowel movement. Hold this position for 5 to 10 seconds. Release and rest. Repeat.)
- Use of medications and over-the-counter drugs to help with incontinence (Imodium for clustering, Metamucil® as a fiber supplement, for example).
- Stool training and biofeedback. These are non-surgical therapies that can retrain your muscles to manage bowel dysfunction like fecal incontinence and constipation. Essentially, you learn through reinforcement how to train the muscles in your bowel to normalize function.
- Carrying a survival pack because you never know when you might need one! You may consider including flushable wipes, clean underwear, plastic bag, hand sanitizer, etc.
- Counseling – For some, talking about the challenges that result from LARS can really help ease stress and shift the focus to other things in life.

Dietary changes to consider

- Dietary changes can help prevent urgency and incontinence. Here are some to consider:
- Eat small, frequent meals (skipping meals can cause increased gas)
- Drink plenty of fluids slowly

- Eat foods help slow and firm up stool including, white rice, pasta, bread, pretzels, tapioca, marshmallows, peanut butter, bananas, potatoes, and yogurt
- Avoid foods that cause gas, including, carbonated beverages, beer, dairy products, nuts, and certain vegetables (such as cabbage, spinach, cucumbers, broccoli, cauliflower, onions, beans, and corn)

Pathophysiology of LAR Syndrome

LAR syndrome is likely multifactorial. Many potential pathophysiologic mechanisms for LAR syndrome have been proposed: internal anal sphincter (IAS) dysfunction, decrease in anal canal sensation, disappearance of the rectoanal inhibitory reflex (RAIR), disruption in local reflexes between the anus and the neorectum, and reduction in rectal reservoir capacity and compliance all have been described.