

Low Anterior Resection Syndrome: A Treatment Algorithm

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For almost 100 years abdominoperineal excision has been the standard treatment of choice for rectal cancer. However, as Miles said, “The operation is a severe one. I do not think that it should be performed on those over 60 years of age; of 10 such cases all died. With regard to the remainder, of whom there were 36, 8 died from the effects of the operation, 4 have had recurrence, 2 died of intercurrent disease, while 22 are alive and well after periods varying from six months to six years.”¹ The conviction that the quality of life for patients with a colostomy after abdominoperineal excision was poorer than for patients undergoing an operation with a sphincter-preserving technique has meant that, over the past 20 years, the anterior resection with preservation of the sphincter function has become the preferred treatment for rectal cancers, with the exception of those cancers very close to the anal sphincter.

To date, also thanks to the multimodal treatment of rectal cancer, sphincter-preserving surgery with the restoration of bowel continuity to avoid a permanent colostomy is feasible in up to 80% of these patients.

However, patients having sphincter-preserving operations may experience symptoms affecting their quality of life that are different from stoma patients and the question of whether the quality of life of people after anterior resection is superior to that of people after abdominoperineal excision/Hartmann operation has yet to be answered.

In fact, up to 80% of patients undergoing a low or very low anterior resection will experience postoperatively a constellation of symptoms including fecal urgency, frequent bowel movements, bowel fragmentation, emptying

difficulties and incontinence, increased gas, collectively referred to as the low anterior resection syndrome (LARS).

Even if most of the functional impairments are clinically recovered by 6 to 12 months after the operation, long-term studies are now reporting the presence of adverse symptoms up to 15 years after resection. These long-term results suggest that after about 12 months, the symptoms of anterior resection syndrome are the result of permanent changes rather than short-lived neorectal irritability in the postoperative period.²

Bowel dysfunction is a major problem with an immense impact on quality of life following sphincter-preserving resection, and the quality of life of patients who have had rectal cancer is closely associated with the severity of the LARS.³ Impaired bowel function is usually provoked by the variable association of colonic dysmotility, neorectal reservoir dysfunction, and anal sphincter or pelvic nerves damage.

There are currently no specific treatments for anterior resection syndrome. Management is empirical and symptom based, using existing therapies for fecal incontinence, fecal urgency, and rectal evacuatory disorders.

Moreover, rectal cancer specialists do not have a very thorough understanding of which bowel dysfunction symptoms truly matter to the patient after sphincter-preserving treatment, or how these symptoms affect the patient's quality of life, despite LARS being a prevalent and troublesome syndrome. Physicians tend to overestimate the impact of incontinence for liquid stool and frequent bowel movements, while underestimating the impact of urgency and clustering.⁴

The aim of the present article is to suggest an operative algorithm for the management of LARS.

PHYSIOPATHOLOGICAL CONSIDERATIONS

The etiology of LARS is multifactorial with the potential of sphincter injury during anastomosis construction, alterations in anorectal physiology, the development of a pudendal neuropathy, and a lumbar plexopathy with exacerbation of symptoms if there is associated anastomotic sepsis or the use of adjuvant and neoadjuvant therapies.

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