

Quality of Life in Patients Who Underwent Rectal Cancer Through Low Anterior Resection or Abdominoperineal Amputation

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ABSTRACT

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Editorial

Colorectal cancer is the second most frequent neoplasm in both sexes. Patients associate Rectal Cancer with colostomies and the stigma that this entails. Until a few decades ago being diagnosed with rectal cancer was, according to its stage, a deadly prognosis and in the best case a mutilation for life. The more advanced the tumor was, the higher mortality rate it supposed. The new imaging techniques added to the screening protocols and other advances in the investigation of rectal disease have meant an increase in the earliest diagnoses and therefore subsidiary of surgical treatment with curative intent. The surgical intervention that until the middle of the last century supposed the only possible option was Abdominoperineal amputation. The psychological, physical and social impact of the colostomized patients is very high. The social taboo that stool supposes, as well as everything that has to do with the stoma, provokes the stigmatization suffered by the colostomized patients. In addition to the psychosocial consequences, these patients are also subsidiary of complications associated with stoma and surgical wound; obstructions due to stenosis, prolapses of the stoma, and hernias due to the perineal wound [1].

The possibility of eliminating the complications and stigmatization derived from the permanent stoma, as well as the notable drop in the quality of life reported by colostomized patients, led to the study and development of new interventions that could replace conventional treatment. In this context, Anterior Resection was presented as an alternative to Abdominoperineal Amputation. Even so, those tumors that were in the middle and distal third of the

rectum were difficult to intervene until the arrival of new self-healing techniques and endoanal surgery. In this way, the Low Anterior Resection began to be an alternative to the permanent colostomy. Despite this, the invasion of sphincters or the levator ani muscle, as well as large tumors in the narrow pelvis or the compromise of the sphincter function remain absolute indications for Abdominoperineal Amputation [2]. Despite this, the practice of Low Anterior Resection has notably increased in recent times. This intervention today accounts for most of the interventions performed with curative intent in rectal cancer [3].

In the literature, the so-called Lower Anterior Resection Syndrome is mentioned, a set of symptoms and signs that present those patients undergoing rectal resection. It is remarkable that a specific symptomatology is so intimately related to the intervention, so that it receives the qualification of a specific syndrome. These symptoms appear to be related to nerve injury of the hypogastric plexus, which ultimately results in decreased anorectal sensitivity and incoordination of reflexes. The alteration of the inhibitory rectum-anal reflex can produce some of the symptoms related to this syndrome. Some of these alterations that make up the Syndrome of Low Anterior Resection are defecatory urgency, tenesmus, the significant increase in the number of stools and variable degrees of fecal incontinence.

The SRAB appears to be present in more than 60% of the patients who underwent rectal cancer using sphincter preservation techniques [4]. Radiotherapy can damage the nerves of the my-

enteric plexus and produce a certain degree of fibrosis in the pelvic muscles [5-7]. This would explain that patients undergoing neoadjuvant treatments with chemoradiotherapy present greater continence difficulties and therefore their quality of life is affected. One of the effects of resection of the rectum and subsequent anastomosis is the increase in defecatory frequency and some degree of fecal incontinence. The suppression of a rectal ampulla implies the suppression of an anatomical structure destined to the retention of the feces, until reaching a certain volume and stimulating the defecation. The rectal ampulla and its anatomophysiology prevent us from expelling stools with a frequency much higher than what is physiologically accepted (from 1-3 bowel movements per day to 1 bowel movement every 3 days).

Incontinence, added to the exponential increase in the frequency of bowel movements, affects the quality of life of patients. This symptomatology prevents them in many occasions to realize a normal socio-labor life. Regarding another of the consequences of surgical interventions in the rectum, we must review the anatomy and physiology of sexual function. To know the mechanisms that could cause sexual dysfunction in patients operated on for rectal cancer, we must know the path taken by the nerves and structures involved in the erection, vaginal stimulation and ejaculation. Although it is not clear the level at which the innervation injury occurs, there appear to be three possible causes: during the perineal dissection, during the dissection of the pelvic wall, and, what seems more likely, during the anterior dissection of the rectum. Numerous studies show the sexual dysfunction suffered by patients operated on for rectal cancer by Abdominoperineal Amputation in relation to Sphincter Preservative Surgery.

The comparison resolves that the dysfunction is significantly more frequent in perineal abdominal amputation than in the previous resection. Even so, these studies do not reveal the rate of sexual dysfunction in patients undergoing a lower anterior resection, which in comparison with high anterior resection reveals an increase in problems in sexual function. The lack of specific studies of sexuality in patients operated on for rectal cancer of very low location limits our ability to state without fear of being wrong that Abdominoperineal Amputation presents a higher risk of sexual dysfunction than Anterior Low or Ultra Low Resection. The European Organization for Cancer Research and Treatment (EORTC) has validated in the last decade different questionnaires for the evaluation of quality of life in cancer patients. The general questionnaire to assess the quality of life of cancer patients is the QLQ-C30 [8]. This questionnaire has a total of 30 questions divided into five functional scales (physical, emotional, social, cognitive and role functioning), three scales of symptoms (fatigue, pain, nausea or vomiting), a global scale of health or quality of life and finally some individual items such as dyspnea, loss of appetite, insomnia, constipation or diarrhea and the financial impact of cancer on the patient.

In addition, the EORTC provides specific modules that complement the general questionnaire in different specific neoplasms. In

the case of rectal cancer, we have eight additional items in the expanded questionnaire, validated by this European body. Said questionnaire is QLQ-CR 38 [9]. In addition to these questionnaires, there are also other health questionnaires used in some of the studies that we have consulted. An example is the SF-36, which assesses health in eight dimensions: physical functioning (10 items), physical limitation (3 items), limitation due to emotional problems (3 items), social functioning (2 items), emotional well-being (5 items), energy / fatigue (4 items), pain (2 items), general perception of one's health (5 items) [10]. In the subscales of the functional role and social function, patients undergoing Abdominoperineal Amputation score better than patients undergoing Low Anterior Resection. These, on the other hand, score slightly better on emotional function and significantly better on the body image subscale.

However, there are no significant differences, for purposes of quality of life, between Abdominoperineal Amputation and Low Anterior Resection. To date, we do not find definitive arguments in favor of ultra-low reconstructions in the face of abdominoperineal amputations in relation to quality of life. We think that the selection must be individualized. Of course, the idea that preserving the anal defecatory function at all costs is the priority in the quality of life of patients is no longer true. We must ask ourselves a whole series of questions about the expectations, desires and values of each patient so that, together with him, we can make the opportune decision.

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