



Post-operative oncological and psychological evaluation of patients with colostomy for colorectal cancer



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BACKGROUND: *The therapeutic arsenal for colorectal cancer is largely made up of surgery. In digestive tumors, ostomy devices induce loss of function and control. This medical device generates changes that affect all aspects of patients' lives. This study evaluates the postoperative follow-up from the oncological point of view and the psychological impact of colostomy on the quality of life of patients with colorectal cancer, analyzing any complications or relapses, and the high risk of self-concept disorder and social isolation.*

METHODS: *The aim of the work was to identify all the surgeries for colorectal cancer performed in the Federico II University Hospital of Naples, from 2018 to 2021, and among them how many had been packaged a colostomy. We then analyzed how many patients had been evaluated 12 months after surgery, with a transanal endoscopy or transtomy, and the percentage of any complications or relapses. The same patients who underwent endoscopic control were also evaluated psychologically, to analyze how they lived the packaging of the ostomy and how it had affected the quality of life.*

RESULTS: *At endoscopic control, diversion colitis phenomena and few cases of stoma stenosis and stomatitis were detected. No case of neoplastic recurrence. From the psychological point of view, the problems detected were in particular the alteration of body image, the loss of sphincter control, embarrassment and shame for the bad smell, impairment of sexuality and difficulties in the couple relationship and social contacts, anxiety, depression and loneliness.*

CONCLUSIONS: *The post-operative evaluation of the ostomy patient following colorectal cancer requires endoscopic control to suddenly detect recurrences and complications and psychological support that improves their quality of life.*

KEY WORDS: Permanent Colostomy, Psychological Adjustment, Quality of Life, Temporary Colostomy

Introduction

Colorectal cancer is a neoplasm of great socio-economic importance, which in Western countries ranks second in incidence and mortality after lung cancer in men and breast cancer in women. The incidence in Italy is estimated at about 30,000 new cases (20,000 of the colon,

10,000 of the rectum) per year, with a number of about 18,000 deaths each year (10% of all deaths from cancer in both sexes).

In some cases, the localization of the lesion or the stage of the disease does not allow resection surgery with anastomosis, and the creation of a stoma is necessary. Permanent or temporary ostomy is necessary in the management of a number of colorectal disorders, including malignant tumors. The type of stoma and its reversibility are extremely variable¹. It represents a surgical operation in which an intestinal segment is diverted to an artificial opening of the abdominal wall, which allows you to eliminate fecal contents. Over 80% of rectal cancer patients undergoing proctectomy undergo fecal diversion during the initial operation, and about 20% under-

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go abdominoperineal resection (APR) with permanent colostomy ².

Pelvic reconstruction with a perineal colostomy after an abdominoperineal resection does not compromise the beneficial effect of rescue surgery, even after a high dose of radiation therapy seems to be safe and feasible ³.

It is essential for every general surgeon performing colon or rectal surgery to know the post-operative support in the treatment of the stoma, since, although ostomy can be lifesaving, it is undeniable that the quality of life is altered ⁴. There are four main types of intestinal stoma, which can be created with both the small and large intestines. These are: the end-stoma, loop-stoma, end-loop-stoma (also called Prasad) and pseudo-loop-stoma. In the end-loop-stoma, the intestinal loops, proximal and distal, are carried through the same opening as the abdominal wall. This technique is preferred to the end-stoma and the closure of the stoma can often be performed without the need for a laparotomy ⁵. The pseudo-loop stoma is used when there is difficulty in creating a well-perfused stoma without tension. Pseudo-ring stoma occurs after sigmoid colectomy or following terminal ileostomy or colostomy in an obese patient ¹.

The follow-up of the patient from the oncological point of view aims to lengthen and improve the patient's survival, identifying the resumption of the disease in the preclinical phase and preventing and diagnosing metachronous tumors early ⁶.

The process of assessing the quality of life in a stomatized is complex. Several studies suggest that health-related quality of life is often compromised ⁷.

A generic tool for quality-of-life assessment, which does not include aspects important for ostomy patients such as smell or concern about leaks from the device, is not entirely sufficient for evaluation. However, using generic tools is important to compare quality of life with the general population, such as the Short Form 36 version 2 (SF36v2). A study of 2329 respondents, of whom 40% with a colostomy and 44% with an ileostomy, showed that physical health limited ostomates to a greater extent than the general population ⁸.

The Stoma Quality of Life Scale (SQoLS) is a 21-item tool for condition-specific quality of life; includes a work/social function scale, a sexuality/body image scale, a stoma functional scale and a measure of the financial impact on ostomates and skin irritation ⁹.

The City of Hope Quality of Life Ostomy (COH-QOLO) is a 90-item, condition-specific tool with a very wide scope. Validation of this tool has shown that married ostomates, those who identify with a support system, and those who are active in the workforce have a higher quality of life than other ostomates who do not have these characteristics ¹⁰.

The quality of life of colostomized is influenced by several factors, and is severely compromised in the immediate postoperative period, but improves drastically within 3 months and subsequently stabilizes ¹¹. Adding edu-

cational sessions after discharge and stoma support groups, focusing on topics such as daily life with a stoma, sexuality, and intimacy, and returning to work can lead to a faster improvement in quality of life ¹².

Methods

In the period 2018-2021 in the Federico II University Hospital of Naples, 525 surgeries were performed for localized colorectal tumors: 21 in the transverse, 126 in the ascending colon, 92 in the descending colon, 80 in the sigma, 140 in the rectum, 28 at the level of the rectosigmoid joint, 14 in the cecum, 6 in the splenic flexure, 18 in unspecified locations. In 74 of these interventions, it was necessary to pack a colostomy, in particular 52 definitive and 22 temporary. In none of these procedures were there any intraoperative or short-term complications. On average, after one year after surgery, patients with ostomy were reconvened to perform a follow-up endoscopy and psychological evaluation. The patients were given a questionnaire that tended to detect the psychological state, looking for some important aspects such as: the acceptance of themselves in this new condition, in particular their own body so disfigured; anxiety and depression that can affect about half of ostomates ¹³; the isolation present in 20% of ostomates who interrupt interpersonal contacts; the decrease in sexual desire for shame towards the partner ¹⁴.

Results

At the endoscopic control of patients with colostomy, 12 cases of diversion colitis (8 in the definitive ostomy and 4 in the temporary stoma) with signs of bleeding were detected at transanal exploration, while in the transtomy evaluation in 5 patients (3 temporary and 2 definitive) there was a stoma stenosis, not passable with the standard endoscope, which required the use of a pediatric instrument. In 4 cases we detected a stomite, and they were all definitive colostomy. None of the endoscopies performed showed recurrences of the previously treated neoplastic pathology. The evaluation of the tests administered for the psychological component showed results absolutely in line with those of the international literature. The most frequent reactions were certainly anxiety, depression and isolation, and affected 86% of patients with definitive ostomy and 68% for those with temporary ostomy.

These manifestations were certainly determined by the mutation of one's body image, by the impossibility of controlling the ostomy and therefore by the fear of having leaks or of giving off a bad smell. Another problem that emerged from the questionnaire is the difficulty in couple relationships, which seems to affect men (87%) more than women (70%) ¹⁵.

Discussion

Adequate preparation of healthcare professionals is needed to help overcome the difficulties that the stoma patient faces. In addition to the technical aspects of "stoma care", psychological well-being must be taken care of with constant support and accompaniment, emphasizing that the ostomy patient can carry out a normal life thus helping him to regain confidence in himself¹⁶.

Conclusions

In our case studies, colorectal cancer interventions in which the creation of a colostomy was necessary represent 14% of all procedures, and definitive stomas were pre-eminent over temporary ones. Endoscopy remains one of the postoperative investigations, for oncological evaluation, fundamental to evaluate complications and neoplastic relapses. Regarding psycho-social problems, the assessments conducted at least one year after the operation, and in the light of the results that emerged, we can state that ostomate patients need the support of a psychologist in the health sector, in the pre- and post-operative, to address the changes resulting from the stoma¹⁷.

Riassunto

L'arsenale terapeutico per il cancro colon retinale è in larga parte costituito dalla chirurgia. Nei tumori digestivi, i dispositivi di stomia inducono la perdita della funzione e del controllo anale. Questo apparecchio medico genera cambiamenti che riguardano tutti gli aspetti della vita dei pazienti. Questo studio valuta il follow-up postoperatorio dal punto di vista oncologico e l'impatto psicologico della colostomia sulla qualità di vita dei pazienti con cancro coloretale, analizzando eventuali complicanze o recidive, e il rischio elevato di disturbo del concetto di sé e di isolamento sociale.

Metodi: Lo scopo del lavoro è stato quello di individuare tutti gli interventi chirurgici per cancro del colon-retto eseguiti nella AOU "Federico II" dal 2018 al 2021, e tra questi in quanti fosse stata confezionata una stomia. Successivamente abbiamo analizzato quanti pazienti fossero stati valutati a 12 mesi dall'intervento, con una endoscopia transanale o transtomia, e la percentuale di eventuali complicanze o recidive. Gli stessi pazienti sottoposti a controllo endoscopico sono stati valutati anche psicologicamente, per analizzare come vivessero il confezionamento della stomia e in che modo avesse influenzato la qualità della vita.

Risultati: Al controllo endoscopico sono stati rilevati, in modo particolare, fenomeni di colite da diversione, e pochi casi di stenosi dello stoma e di stomite. Nessun caso di recidiva neoplastica.

Dal punto psicologico le problematiche rilevate sono state in modo particolare l'alterazione dell'immagine corporea, la perdita del controllo sfinterico, l'imbarazzo e vergogna per il cattivo odore, compromissione della sessualità e difficoltà nella relazione di coppia e nei contatti sociali, l'ansia, la depressione e la solitudine.

Conclusioni: La valutazione post-operatoria del paziente stomizzato in seguito a cancro colon retinale necessita del controllo endoscopico per individuare repentinamente recidive e complicanze insorgenti e del supporto psicologico che migliora la loro qualità di vita.

References

1. Sylla P, Kaiser AM, Popowich D: *The SAGES manual of colorectal surgery*. Springer, 2020.
2. Warschkow R, Ebinger SM, Brunner W, Schmied BM, Marti L: *Survival after abdominoperineal and sphincter-preserving resection in nonmetastatic rectal cancer: A population-based time-trend and propensity score-matched seer analysis*. Gastroenterol Res Pract, 2017; 2017:6058907, doi: 10.1155/2017/6058907, Epub 2017; Jan 18, PMID: 28197206; PMCID: PMC5286526.
3. Goéré D, Bonnet S, Pocard M, Deutsch E, Lasser P, Elias D: *Oncologic and functional results after abdominoperineal resection plus pseudocontinent perineal colostomy for epidermoid carcinoma of the anus*. Dis Colon Rectum, 2009; 52(5):958-63, doi: 10.1007/DCR.0b013e31819f2a4b, PMID: 19502862.
4. Kinyas Kartal, Bulent Citgez, Mustafa Hakan Koksall, Evren Besler, Ismail Ethem Akgun, Mehmet Mihmanl: *Colostomy reversal after a Hartmann's procedure. Effects of experience on mortality and morbidity*. Ann Ital Chir, 2019; 90:6:539-544.
5. Cataldo PA. *Technical tips for stoma creation in the challenging patient*. Clin Colon and Rectal Surg, 2008; 21(1):17-22.
6. Bogdan V, Micu, Ștefan C, Vesa, Tudor-Radu Pop, Carmen M, Micu: *Evaluation of prognostic factors for 5 year-survival after surgery for colorectal cancer*. Ann Ital Chir, 2020; 91:1: 41-48.
7. Pittman J, Kozell K, Gray M: *Should WOC nurses measure health-related quality of life in patients undergoing intestinal ostomy surgery?* J Wound Ostomy Continence Nurs, 2009; 36(3):254-65, doi: 10.1097/WON.0b013e3181a39347, PMID: 19448506.
8. Nichols TR: *Quality of life in US residents with ostomies as assessed using the SF36v2*. J Wound Ostomy Continence, 2015; 42(1):71-8.
9. Baxter NN, Novotny PJ, Jacobson T, Maidl JL, Sloan J, Young-Fadok TM: *A stoma quality of life scale*. Dis Colon Rectum, 2006; 49:205-12.
10. Grant M, Ferrell B, Dean G, Uman G, Chu D, Krouse R: *Revision and psychometric testing of the city of hope quality of life ostomy questionnaire*. Qual Life Res, 2004; 13:1445-7.
11. Marquis P, Marrel A, Jambon B: *Quality of life in patients with stomas: The montreux study*. Ostomy Wound Manage, 2003; 49(2):48-55.
12. Danielsen AK, Rosenberg J: *Health related quality of life may increase when patients with a stoma attend patient education: a case-control study*. PLoS One, 2014; 9(3): e90354.

13. Bonomo GM, Grilletti G, Nocchiero M, Margari A: *Il follow-up sociopsicologico degli stomizzati*, Folia Oncologica, 1982; v. 5.
14. Canestrari R, Ricci Bitti PE: *Sulle reazioni psicologiche alla colec-tomia totale*. Medicina Psicosomatica, 1975; 20, n. 3.
15. Caruso A, Di Giandomenico F, D'Aversa C, Nisi E, Pugliese P: *L'intervento dello psicologo in oncologia*, in "Modelli di intervento dello psicologo in ospedale" a cura di Ferretti R, Gentili MV: *Atti del Convegno di Camerino*, 9/6/1997.
16. Fioravanti M, Di Cesare F, La Torre F, Lazzari R: *Adattamento psicologico e riabilitazione in pazienti enterostomizzati*, in: "Psicologia in ospedale, esperienze a confronto", Nuova Editrice Spada, 1991.
17. Aynur Kamal Safiyeva, Nuru Yusif Bayramov: *The importance of colonoscopy in the treatment of colorectal polyps and colorectal cancer screening*. Ann Ital Chir, 2019; 90, 4:311-17.

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