Hellenic Journal of Surgery 2011; 83: 6

Sexual and Urinary Dysfunctions Following Laparoscopic Resection for Rectal Cancer

Review Article

P. Lampropoulos, S. Rizos, Ch. Tsigris, N. Nikiteas
Received 03/08/2011 Accepted 21/09/2011

Abstract

Laparoscopic resection for rectal cancer has increasingly gained support over the last years. Sexual and urinary functions are two elements pertaining to the Quality Of Life (QOL) that may be significantly altered. Postoperative urinary and sexual dysfunctions resulting from damage to the autonomic nervous system are recognized complications following rectal surgery. Laparoscopic surgery can potentially facilitate preservation of these nerves. However, there are insufficient data in the literature addressing this issue. A systematic review of the literature was carried out using PUBMED/MEDLINE databases to identify all studies that compare laparoscopic vs. open resection of rectal cancer using Total Mesorectal Excision (TME) that include results on QOL for the patients. The purpose of this article is to systematically review the current literature reporting sexual and urinary functions following laparoscopic rectal surgery to determine possible risk factors and identify questions that should be addressed in the future.

Key words:

Laparoscopic colorectal cancer resection, Sexual and urinary dysfunction, Quality of Life

Introduction

The ultimate goal of rectal cancer treatment is to achieve oncological clearance, minimize recurrence rates and prolong survival rates. Efforts are made to minimize local recurrence, avoid distant metastasis and maintain the anal sphincter mechanism, while at the same time preserve urinary and sexual functions. This article reviews findings from different studies investigating urinary and sexual dysfunctions following laparoscopic resection for rectal cancer patients

P. Lampropoulos (Corresponding author), S. Rizos
- 1st Surgical Department, "Tzaneio" Hospital of Piraeus, Greece
Ch. Tsigris
- 1st Department of Propaedeutic Surgery, "Laiko" General Hospital, Athens University Medical School, Greece
N. Nikiteas
- 2nd Department of Propaedeutic Surgery, "Laiko" General Hospital, Athens University Medical School, Greece
e-mail: pav.lampropoulos@gmail.com

Anatomical and Physiological Parameters

The inferior hypogastric nerve plexus as a continuation of the superior hypogastric nerve plexus carries all the innervating nerve fibres to the pelvis. It is formed from the sacral splachnic nerves (sympathetic fibres) and the pelvic splachnic nerves S2-S4 (parasympathetic fibres). The rectal, uretovaginal, prostatic, and vesical plexuses arise from the inferior hypogastric nerve plexus and innervate the pelvic viscera.

The parasympathetic nerve fibres are responsible for increased blood flow to the genitalia, causing erection in males and lubrication and swelling of the clitoris in females. The sympathetic nerve fibres are responsible for emission and ejaculation, by rhythmic stimulation and subsequent contraction of the genital ducts. The detrusor muscle is innervated by sympathetic nervous system fibres from the lumbar spinal cord and parasympathetic fibres from the sacral spinal cord. During the storage phase, the internal urethral sphincter remains tense and the detrusor muscle relaxed by sympathetic stimulation, ensuring urinary continence. During micturition, parasympathetic stimulation causes the detrusor muscle to contract and the internal urethral sphincter to relax.

Complete resection of the pelvic autonomic nerves has been reported to cause neurogenic bladder in 31% to 53% [1,2] of patients, while excellent urinary function results are achieved with complete preservation of the pelvic autonomic nerves [1-4]. Erection and ejaculation are maintained in 76% - 96% and 55% - 83% of patients respectively [1,3-6], after nerve preserving surgery.

Pelvic Autonomic Nerve Bundles Preservation

Pelvic autonomic nerve plexuses are at increased risk during rectal cancer surgery, despite the introduction of the Total Mesorectum Excision (TME) technique by Heald et al [7]. TME for rectal cancer,

shows oncologic superiority with lower recurrence rates of 4% [8], and provides the benefit of better preservation of the autonomic pelvic nerve plexus. Bladder and sexual dysfunction following rectal surgery can be avoided by identifying and preserving the pelvic autonomic nerves, as they lie posterior to the plane of dissection. Efforts should be made to standardize the operative technique to improve the quality of life of rectal cancer patients [9].

Whenever an organ is mobilized during rectal surgery, the autonomic innervation to the bladder and sexual organs is at increased risk of damage. Bauer et al [10] described potential sites of nerve injury. Lumbar nerves may be damaged at the level of the sacral promontory on entering the pelvis, as they divide and lie on their side. The parasympathetic fibres as the nervi erigentes can be damaged during dissection of the lateral ligaments. Wide ligation should be avoided. The anterior wall of the rectum is in close proximity to the prostate gland. The plane of dissection should be adjacent to the rectal muscle fibres, so as to protect the nerve fibres of the periprostatic plexus. In anterior middle rectal wall cancers, however, survival is more important than any sexual dysfunction, and free of cancer circumferential margins are needed.

Sexual And Urinary Dysfunction Risk Factors

Aging

The age specific rates for colorectal cancer have increased in elderly patients, although it has remained stable in younger patients (67% in older men compared to 43% in younger men, and 51% in women in the older group compared to 22% in the younger group) [11]. Sexual and urinary function declines with aging and certainly affects the quality of life. It becomes clear that rectal cancer patients may already have functional disorders before treatment, making any attempt to study these parameters quite difficult. International Prostate Symptom Score (IPSS) [12] and International Index of Erectile Dysfunction (IIEF) [13] are practical indexes for use in research protocols and clinical settings. Cardiovascular disease is the leading cause of morbidity in the elderly and is associated with sexual dysfunction. The prevalence of erectile dysfunction mainly increases with age. In clinical practice, screening in women shows that up to 76% of women have some type of sexual dysfunction associated with aging [14,15].

Ostomies

Ostomies following rectal cancer surgery have a major negative physical, social and psychological impact on patients. The presence of an ostomy has a negative effect on the sexual health and quality of life. Although there are studies that associate lower rates of sexual activity and higher erectile dysfunction in patients with ostomies [16,17], others conclude that patients undergoing abdominoperineal resection with a permanent stoma have an equivalent quality of life to those undergoing low anterior resection for rectal cancer [18].

Neoadjuvant Radiotherapy

The role of preoperative radiotherapy has been clarified. It reduces local recurrence rates in up to 28% of patients and improves 5-year survival rates reaching 8% [19-21]. Radiation therapy, however, is not without its side effects, causing thromboembolic episodes, femoral fractures, anal sphincter incontinence, proctitis, enteritis, small bowel obstruction and sexual dysfunction [22-24]. The underlying mechanism seems to be multifactorial and includes increased fibrosis with deposition of abnormal fibroblasts and ischaemia from endothelial damage, altering directly neural and vascular structures to sexual organs, and psychological parameters. Radiation therapy damages the cavernous arteries and results in impotence, while the seminal vesicles may stop functioning, leading to ejaculatory abnormalities [25,26]. Lange et al [27], however, in a large international multicentre trial, concluded that preoperative radiotherapy was not an independent risk factor for erectile or ejaculatory problems and that surgery is mainly the causative factor.

Drug therapy

Up to 40% of sexual dysfunction, in terms of decreased libido and erectile failure, has also been attributed to a variety of classes of pharmacotherapy, especially antidepressants [28], although the actual incidence might be higher since patients are reluctant to discuss sexual problems. Serotonin Selective Reuptake Inhibitors (SSRI) for treating depression are most commonly implicated in sexual disturbance, although other common psychotropic drugs including haloperidol, benzodiazepines, stimulants and drugs of abuse have also been reported [29]. First line antihypertensive drugs (diuretics, β-blockers, Ca channel uptake inhibitors, Angiotensin Converting Enzyme Inhibitors) play an important role in sexual disturbances. In a clinical trial [30], all hypertensive drugs caused some kind of sexual disturbance, with the exception of captopril which might have some advantage over others. Another report [31] showed that administration of doxazosin, for preoperative control of hypertension due to pheochromocytoma,

caused retrograde ejaculation. Recently, Tin et al [32] studied the quality of life in patients entered for the 22921 EORTC trial, following the addition of chemotherapy to preoperative radiotherapy. Although there was significant missing data on the QLQ-C38 questionnaire [33], the addition of chemotherapeutic drugs to preoperative radiotherapy appeared to cause sexual and micturition problems in both sexes, although men had higher scores in sexual problems than women.

Laparoscopic TME vs Open TME Surgery For Rectal Cancer

Comparative and randomized studies comparing laparoscopic versus open resection for rectal cancer have shown similar results regarding clear resection margins, local recurrence and survival rates [34-37]. Only a few studies, however, investigating sexual and/or urinary dysfunctions after laparoscopic resection for rectal cancer using TME compared to open resection are found by searching Pubmed and Medline [38-43].

Jayne et al compared sexual and bladder function among patients who underwent laparoscopic and open rectal cancer resection, and among those who underwent laparoscopic rectal and laparoscopic colonic cancer resection [38]. Despite the low completion rate for sexual questionnaires, especially from women, the laparoscopic rectal resection did not appear to adversely affect bladder function, but there was a tendency for sexual function to become worse after laparoscopic resection, particularly in terms of erectile function. Furthermore, multivariate analysis showed that TME and conversion to open surgery were independent predictors of reduced postoperative male sexual function.

Quah et al, in a retrospective analysis, investigated the frequency of sexual and urinary complications following laparoscopic assisted and conventional open mesorectal resection for cancer [39]. There was no significant dysfunction in bladder physiology following surgery, although two patients required self-catheterization in the laparoscopic group. A significant difference, however, in the sexual function was observed between the two groups in males. Even though all surgeons in this study were experienced laparoscopic surgeons, proficient in TME surgery, 7 out of 15 male patients in the laparoscopic group reported impotence (5 patients) or reduced erectile function (1 patient), while 6 patients were unable to ejaculate. This study had a 72% response rate, which is high considering the sensitivity of the subject, especially for women who are reluctant to answer these types of questions.

In another study [40] by Rullier et al, functional outcomes were investigated after laparoscopic intersphincteric resection with coloplasty and coloanal anastomosis for rectal cancers with a lower edge less than 12 cm from the anal verge. All procedures in 32 patients (21 men) were performed by one experienced surgeon and the hypogastric and pelvic plexuses were identified and preserved in 24 patients. After a median follow-up of 6 months, 10 of the 18 male patients who were sexually active before surgery, remained active, while 8 patients retained normal ejaculation. Only one patient with unilateral pelvic plexus damage had persistent urinary problems.

In 2009, a prospective evaluation for sexual function using IIEF compared 38 patients who underwent open resection for rectal cancer and 18 patients who underwent laparoscopic resention [41]. No difference was observed between the open and laparoscopic group in comparison of total IIEF and domain scores preoperatively at 3-month and 6-month assessment points, although there was a trend for sexual dysfunction between the two groups, in favour of the laparoscopic group at 6 months (P=0.076).

In a clinical control trial, Yang et al [42] evaluated the health-related quality of life (HRQoL) outcomes in patients with low rectal cancers undergoing sphincter preserving surgery, by handing out questionnaires at three time intervals: 3-6 months, 12-18 months and 2-5 years, postoperatively. It was revealed that patients in the laparoscopic arm had significantly less micturition problems within 12-18 months, better sexual function and less male sexual problems during 12-18 months, and better sexual enjoyment after 24 months than patients in the open surgery arm. In addition, patients in the former arm had improved sexual function earlier than patients in the latter arm. Unfortunately, female sexual function in this trial could not be evaluated properly, due to missing data and low response rate.

In another retrospective study by Asoglu et al [43], sexual and bladder function assessment was carried out in 29 open and 34 laparoscopic cases in patients with rectal cancer who were sexually active at baseline. No significant difference was found between patients who had open and those who had laparoscopic surgery, as far as urinary function is concerned. Fifty percent of female patients in the open TME group and 7% of female patients in the laparoscopic TME group (p=0.03) had decreased sexual function. Amongst males, 6 out of 17 sexually active patients in the open TME group and 1 out of 18 sexually active patients in the laparoscopic

TME group reported impotence (p=0.04).

Conclusion

Laparoscopic resection for rectal cancer has increasingly gained support in the last decades, providing similar short term oncological outcomes [44-47] as open surgery, but with the advantage of less pain, less blood loss and earlier return to daily activities. TME resection is essential for superior oncological results and has been shown to be technically feasible laparoscopically [48]. Laparoscopic view of the pelvis greatly facilitates the identification of the autonomic nerve plexuses, which is of paramount importance if sexual and urinary functions are to be maintained. Laparoscopic resection for low rectal cancer should be performed by experienced surgeons, in order to achieve TME and preservation of bilateral hypogastric and pelvic nerve plexuses.

Results from different studies, as mentioned earlier, contradict one another. This is probably due to the heterogeneity of the patients and selection bias. It is not as yet possible to draw any conclusions from the literature, since more randomized control trials are needed in order to assess the quality of life following laparoscopy or open surgery for rectal cancer. However, although not statistically significant, surgeons must be cautious when treating male patients with low bulky tumours of the rectum, as there is a tendency for worse overall sexual function after laparoscopic surgery as opposed to open surgery. Patient informed consent should be obtained in all cases.

Conflict of interest

The authors declare that they have no conflict of interest.

References

1. Sugihara K, Moriya Y, Akasu T, et al. Pelvic autonomic nerve preservation for patients with rectal carcinoma. Oncologic and functional outcome. Cancer 1996;78:1871–1880.

2. Mitsui T, Kobayashi S, Matsuura S, et al. Vesicourethral dysfunction following radical surgery for rectal carcinoma: change in voiding pattern on sequential urodynamic studies and impact of nerve-sparing surgery. Int J Urol 1998;5:35–38.

3. Saito N, Sarashina H, Nunomura M, et al. Clinical evaluation of nerve-sparing surgery combined with preoperative radiotherapy in advanced rectal cancer patients. Am J Surg 1998;175:277–282.

4. Moriya Y, Sugihara K, Akasu T, et al. Nerve-sparing surgery with lateral node dissection for advanced lower rectal cancer. Eur J Cancer 1995;31A:1229–1232.

5. Masui H, Ike H, Yamaguchi S, et al. Male sexual function after autonomic nerve-preserving operation for rectal cancer. Dis Colon Rectum 1996;39:1140–1145.

6. Hojo K, Vernava AM 3rd, Sugihara K, et al. Preservation of urine voiding and sexual function after rectal cancer surgery. Dis Colon Rectum 1991;34:532–539.

7. Heald RJ, Husband EM, Ryall DH. The mesorectum in rectal cancer surgery – the clue to pelvic recurrence? Br J Surg 1982;69:613–616.

8. MacFarlane JK, Ryll RD, Heald RJ. Mesorectal excision for rectal cancer. Lancet 1993;341:457–460.

9. Havenga K, Maas CP, DeRuiter MC et al. Avoiding long-term disturbance to bladder and sexual function in pelvic surgery, particularly with rectal cancer. Semin Surg Oncol 2000;18:235-243.

10. Bauer JJ, Gelernt IM, Salky B, Kreel I. Sexual dysfunction following proctocolectomy for benign disease of the colon and rectum. Ann Surg. 1983;197:363-7.

11. Rottenberg Y, Barchana M, Liphshitz I, et al. The changing face of cancer in the elderly: only a demographic change? Arch Gerontol Geriatr. 2010;50:e59-62.

12. Barry MJ, Fowler FJ Jr, O'Leary MP, et al. The American Urological Association symptom index for benign prostatic hyperplasia. The Measurement Committee of the American Urological Association. J Urol. 1992;148:1549-1557;discussion 1564.

13. Rosen RC, Riley A, Wagner G, et al. The international index of erectile function (IIEF): a multidimensional scale for assessment of erectile dysfunction. Urology. 1997;49:822-830.

14. Salonia A, Munarriz RM, Naspro R, et al. Women's sexual dysfunction: a pathophysiological review. BJU Int. 2004;93:1156-1164.

15. Laumann EO, Paik A, Rosen RC. Sexual dysfunction in the United States: prevalence and predictors. JAMA. 1999;281:537-544.

16. Symms MR, Rawl SM, Grant M, et al. Sexual health and quality of life among male veterans with intestinal ostomies. Clin Nurse Spec. 2008;22:30-40.

17. Dabirian A, Yaghmaei F, Rassouli M, Tafreshi MZ. Quality of life in ostomy patients: a qualitative study. Patient Prefer Adherence. 2010;5:1-5.

18. Cornish JA, Tilney HS, Heriot AG, Lavery IC, Fazio VW, Tekkis PP. A meta-analysis of quality of life for abdominoperineal excision of rectum versus anterior resection for rectal cancer. Ann Surg Oncol. 2007;14:2056-2068.

19. Colorectal Cancer Collaborative Group. Adjuvant radiotherapy for rectal cancer: a systematic overview of 8,507 patients from 22 randomised trials. Lancet. 2001;358:1291-1304.

20. Folkesson J, Birgisson H, Pahlman L, Cedermark B, Glimelius B, Gunnarsson U. Swedish Rectal Cancer Trial: long lasting benefits from radiotherapy on survival and local recurrence rate. J Clin Oncol. 2005;23:5644-5650.

21. Kapiteijn E, Marijnen CA, Nagtegaal ID, et al; Dutch Colorectal Cancer Group. Preoperative radiotherapy combined with total mesorectal excision for resectable rectal cancer. N Engl J Med. 2001;345:638-646.

22. Lange MM, van de Velde CJ. Urinary and sexual dysfunction after rectal cancer treatment. Nat Rev Urol. 2011;8:51-7.

23. Thong MS, Mols F, Lemmens VE, et al. Impact of Preoperative Radiotherapy on General and Disease-Specific Health Status of Rectal Cancer Survivors: A Population-Based Study. Int J Radiat Oncol Biol Phys. 2011 Feb 28. [Epub ahead of print].

24. Popek S, Tsikitis VL. Neoadjuvant vs adjuvant pelvic radiotherapy for locally advanced rectal cancer: Which is superior? World J Gastroenterol. 2011;17:848-854.

25. Morgentaler A. Male impotence. Lancet. 1999;354:1713–1718.

26. Zelefsky MJ, Leibel SA, Gaudin PB, et al. Dose escalation with three-dimensional conformal radiation therapy affects the outcome in prostate cancer. Int J Radiat Oncol Biol Phys. 1998;41:491–500.

27. Lange MM, Marijnen CA, Maas CP, et al; Cooperative clinical investigators of the Dutch. Risk factors for sexual dysfunction after rectal cancer treatment. Eur J Cancer. 2009;45:1578-1588.

28. Stranieri G. Psychopharmacology of depression and sexual

disorders. Psychiatr Danub. 2010;22:S68-S71.
29. Hirschfeld RM. Management of sexual side effects of antidepressant therapy. J Clin Psychiatry. 1999;60:27-30.
30. Suzuki H, Tominaga T, Kumagai H, Saruta T. Effects of first-line antihypertensive agents on sexual function and sex hormones. J Hypertens Suppl. 1988;6:S649-S651.
31. Amano T, Imao T, Takemae K, Yamauchi K. Ejaculatory disorder caused by doxazosin administration for blood pressure control in patient with pheochomocytoma. Hinyokika Kiyo. 2009;55:377-380.
32. Tiv M, Puyraveau M, Mineur L, et al. Long-term quality of life in patients with rectal cancer treated with preoperative (chemo)-radiotherapy within a randomized trial. Cancer Radiother. 2010;14:530-5344.
33. Fayers P, Aaronson NK, Bjordal K, Sullivan M. EORTC QLQ-C30 Scoring Manual. EORTC quality of life study group. Brussels: EORTC Data Center, 1997:17.
34. Bonjer H. Laparoscopically assisted vs open colectomy for colon cancer. A meta–analysis. Arch Surg. 2007;142:298–303.
35. Buunen M. after laparoscopic surgery versus open surgery for colon cancer: long–term outcome of a randomised clinical trial. Lancet Oncol. 2009;10:44–52.
36. Jayne DG, Guillou PJ. Randomized trial of laparoscopic–assisted resection of colorectal carcinoma: 3–year results of the UK MRC CLASICC Trial Group. J Clin Oncol. 2007;25:3061–3068.
37. Law WL, Lee YM. Impact of laparoscopic resection for colorectal cancer on operative outcomes and survival. Ann Surg. 2007;245:1–7.
38. Jayne DG, Brown JM, Thorpe H, Walker J, Quirke P, Guillou PJ. Bladder and sexual function following resection for rectal cancer in a randomized clinical trial of laparoscopic versus open technique. Br J Surg. 2005;92:1124-1132.
39. Quah HM, Jayne DG, Eu KW, Seow-Choen F. Bladder and sexual dysfunction following laparoscopically assisted and conventional open mesorectal resection for cancer. Br J Surg. 2002;89:1551-1556.
40. Rullier E, Sa Cunha A, Couderc P, Rullier A, Gontier R, Saric J. Laparoscopic intersphincteric resection with coloplasty and coloanal anastomosis for mid and low rectal cancer. Br J Surg. 2003;90:445-451.
41. Stamopoulos P, Theodoropoulos GE, Papailiou J, et al. Prospective evaluation of sexual function after open and laparoscopic surgery for rectal cancer. Surg Endosc. 2009;23:2665-2674.
42. Yang L, Yu YY, Zhou ZG, et al. Quality of life outcomes following laparoscopic total mesorectal excision for low rectal cancers: a clinical control study. Eur J Surg Oncol. 2007;33:575-579.
43. Asoglu O, Matlim T, Karanlik H, et al. Impact of laparoscopic surgery on bladder and sexual function after total mesorectal excision for rectal cancer. Surg Endosc. 2009;23:296-303.
44. Goh YC, Eu KW, Seow-Choen F. Early postoperative results of a prospective series of laparoscopic vs open anterior resections for rectosigmoid cancers. Dis Colon Rectum. 1997;40:776-780.
45. Kwok SP, Lau WY, Carey PD, Kelly SB, Leung KL, Li AK. Prospective evaluation of laparoscopic-assisted large bowel excision for cancer. Ann Surg. 1996;223:170-176.
46. Bokey EL, Moore JW, Chapuis PH, Newland RC. Morbidity and mortality following laparoscopic-assisted right hemicolectomy for cancer. Dis Colon Rectum. 1996;39:S24-S28.
47. Lacy AM, Garcia-Valdecasas JC, Piqué JM, et al. Short-term outcome analysis of a randomized study comparing laparoscopic vs open colectomy for colon cancer. Surg Endosc. 1995;9:1101-1105.
48. Zheng MH, Feng B, Hu CY, et al. Long-term outcome of laparoscopic total mesorectal excision for middle and low rectal cancer. Minim Invasive Ther Allied Technol. 2010;19:329-339.

Σεξουαλικές και Ουροποιητικές Διαταραχές μετά από Λαπαροσκοπική Εκτομή στον Καρκίνο του Ορθού

Άρθρο Ανασκόπησης

Π. Λαμπρόπουλος, Σ. Ρίζος, Χ. Τσιγκρής, Ν. Νικητέας

Περίληψη

Τα τελευταία χρόνια, η λαπαροσκοπική εκτομή για τον καρκίνο του ορθού έχει αποκτήσει σημαντικό έδαφος. Οι σεξουαλικές και ουροποιητικές λειτουργίες είναι δύο στοιχεία της ποιότητας ζωής (QOL) που μπορεί να επηρεαστούν σημαντικά μετά από επεμβάσεις στο ορθό. Οι μετεγχειρητικές ουροποιητικές και σεξουαλικές δυσλειτουργίες που προκύπτουν από κακώσεις στο αυτόνομο νευρικό σύστημα είναι αναγνωρισμένες επιπλοκές. Η λαπαροσκοπική χειρουργική δυνητικά μπορεί να διευκολύνει τη διατήρηση του αυτόνομου νευρικού συστήματος. Ωστόσο, δεν υπάρχουν επαρκή δεδομένα στη βιβλιογραφία για διεξαγωγή συμπερασμάτων για αυτό το θέμα.

Η ηλικία, η προεγχειρητική ακτινοθεραπεία, η κοιλιοπερινεϊκή εκτομή, καθώς και η χειρουργική τεχνική που δε σέβεται τα "πλάνα" της ολικής εκτομής του μεσοορθού, αποτελούν σημαντικούς παράγοντες κινδύνου για μετεγχειρητικές ουροποιητικές και σεξουαλικές δυσλειτουργίες. Στην εποχή μας, τη στιγμή που όλοι αναγνωρίζουν τη σημαντικότητα της ολικής εκτομής του μεσοορθού για τον ασθενή, η μετεγχειρητική σεξουαλική δυσλειτουργία κυμαίνεται από 10% έως 35%, ενώ οι ουροποιητικές διαταραχές κυμαίνονται σε ποσοστά κάτω του 5%. Ο ρόλος της λαπαροσκοπικής χειρουργικής αναμένεται να καθοριστεί, όσον αφορά αυτές τις επιπλοκές.

Οι χειρουργοί οι οποίοι αντιμετωπίζουν ασθενείς με καρκίνο του ορθού είναι αναγκαίο να γνωρίζουν την νευροανατομία της πυέλου και τα χειρουργικά πλάνα προκειμένου να έχουν καλύτερα ογκολογικά αλλά και λειτουργικά αποτελέσματα. Επιπρόσθετα, πολλοί ασθενείς προεγχειρητικά τυγχάνουν άριστης σεξουαλικής και ουροποιητικής λειτουργίας. Ιδιαίτερα, λοιπόν, αυτοί οι ασθενείς, αλλά και όλοι οι ασθενείς ανεξαιρέτως, χρήζουν επαρκή ενημέρωση για τις πιθανές επιπλοκές μιας τόσο μεγάλης χειρουργικής επέμβασης. Εξάλλου, η προεγχειρητική συζήτηση μεταξύ θεράποντος ιατρού και ασθενή έχει αποδειχθεί ότι είναι επιθυμητή από τους περισσότερους ασθενείς, ωστόσο συμβαίνει στο 10% περίπου των περιπτώσεων. Κατά την μετεγχειρητική περίοδο, ο χειρουργός οφείλει να είναι κοντά στον ασθενή και να αντιληφθεί τη συναισθηματική αγωνία που πιθανώς προκύψει από τις σεξουαλικές και ουροποιητικές διαταραχές. Είναι αναγκαίο να υπάρχει σωστή και λεπτομερής ενημέρωση των αρρώστων για πιθανές επιπλοκές όχι μόνο στα πλαίσια της συγκατάθεσης αλλά και στην ορθή μετεγχειρητική αντιμετώπιση του προβλήματος. Αναμφίβολα, η αντιμετώπιση των επιπλοκών αυτών είναι πολυπαραγοντική και συμπεριλαμβάνει ψυχολογική υποστήριξη, φαρμακευτική αγωγή και σε ορισμένες περιπτώσεις χειρουργική παρέμβαση.

Έγινε μια συστηματική έρευνα της βιβλιογραφίας χρησιμοποιώντας τις βάσεις δεδομένων PUBMED/MEDLINE για τον προσδιορισμό όλων των μελετών, που συγκρίνουν τη λαπαροσκοπική με την ανοικτή μέθοδο εκτομής του ορθού για καρκίνο και αναλύουν αποτελέσματα, όσον αφορά την ποιότητα ζωής των ασθενών. Ο σκοπός αυτής της ανασκόπησης είναι να αναλυθούν τα άρθρα αυτά και να προσδιοριστούν πιθανοί παράγοντες κινδύνου.

Δεν υπάρχουν τυχαιοποιημένες μελέτες οι οποίες να διερευνούν το ρόλο της ανοιχτής και λαπαροσκοπικής χειρουργικής στον καρκίνο του ορθού, οι οποίες να εξετάζουν τις συγκεκριμένες επιπλοκές. Ωστόσο από τα υπάρχοντα βιβλιογραφικά δεδομένα, χωρίς να είναι τεκμηριωμένο και με στατιστική ισχύ, μπορούμε να ισχυριστούμε ότι απαιτείται ιδιαίτερη προσοχή σε νέους άρρενες με μεγάλους χαμηλούς όγκους του ορθού, οι οποίοι επιλέγουν τη λαπαροσκοπική θεραπευτική προσέγγιση, καθώς φαίνεται ότι τυγχάνουν δυσμενέστερης σεξουαλικής δυσλειτουργίας μετεγχειρητικά. Σημαντικό μειονέκτημα αυτής της ανασκόπησης είναι η κλινική ανομοιογένεια των ασθενών. Κάθε εργασία που μελετήθηκε χρησιμοποιούσε διαφορετικό σύστημα βαθμολόγησης σεξουαλικής και ουροποιητικής λειτουργίας. Γιαυτό το λόγο ήταν αδύνατον να γίνει στατιστική ανάλυση με ισχύ ή να διεξαχθεί μια μετα-ανάλυση. Τυχαιοποιημένες μελέτες όπου θα συγκρίνουν τη λαπαροσκοπική με την ανοιχτή εκτομή για καρκίνο του ορθού και θα διαλευκάνουν το ρόλο τους στις συγκεκριμένες μετεγχειρητικές επιπλοκές είναι επιτακτικής ανάγκης. Συμπερασματικά, η παρούσα μελέτη δεν ανέδειξε σημαντικές κλινικές διαφορές μεταξύ των δύο μεθόδων στη μετεγχειρητική ποιότητα ζωής ασθενών με καρκίνο του ορθού

Λέξεις κλειδιά

Καρκίνος ορθού, Ολική εκτομή του μεσοορθού, Διαταραχές ουροποιητικού, Σεξουαλικές διαταραχές

- Ά Χειρουργική Κλινική, Γενικό Νοσοκομείο Πειραιά Τζάνειο. - Ά Προπαιδευτική Χειρουργική Κλινική Πανεπιστημίου Αθηνών, Λαϊκό Γενικό Νοσοκομείο. - 'Β Προπαιδευτική Χειρουργική Κλινική Πανεπιστημίου Αθηνών, Λαϊκό Γενικό Νοσοκομείο