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Research Article

Pelvic Recurrence Following Surgical Treatment of Rectal Cancer

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Abstract:

Pelvic recurrence is a common outcome following resection with curative intent for rectal cancer originating from various segments of the rectum. In this retrospective observational study involving 219 patients, surgical treatments were administered between 2014 and 2019 across three surgical centers. Procedures included anterior resection with Hartmann's method (39 patients), anterior resection of rectosigmoid with colorectal anastomosis (130 cases), and abdominoperineal resection (44 cases). After a 2-year follow-up, pelvic recurrence occurred in 19 patients, constituting approximately 8.9% of cases. Recurrent rates were 15.38% for the Hartmann procedure, 9% for abdominoperineal resection, and 7% for anterior resection of rectosigmoid with colorectal anastomosis. The recurrence rate (RR) significantly correlated with the diagnostic stage: stage IV had a 31.4% RR, stage III had a 42.4% RR, stage II had a 21% RR, and stage I had a 5.2% RR. The survival rate among surgically treated patients was 91.99% in the first 2 years after treatment. The findings suggest that rectal cancer diagnosed in advanced stages carries a higher recurrence risk, while a lower recurrence rate indicates the success of curative surgical treatment. Notably, the Hartmann procedure, often performed as an emergency operation for locally advanced lesions, demonstrated the highest recurrence rate.

Key words: pelvic recurrence; rectal cancer; Hartmann's method

Introduction

Pelvic recurrence is a frequent occurrence after resection with curative intent for rectal cancer originating from different segments of the rectum.

Objectives

The study aims to investigate prevalent surgical procedures for recto-sigmoidal cancer and analyze risk factors contributing to an elevated postoperative risk of local relapse.

Methods

This retrospective, multicenter observational study enrolled 219 patients, among whom 213 individuals underwent surgical treatment for rectal cancer between 2014 and 2019 across three hospitals: Clinical Hospital Prof. Constantin Angelescu (Bucharest, Romania), Bucharest Emergency University Hospital (Bucharest, Romania), and Rm. Sarat County Hospital (Buzau, Romania). The patients were subjected to a comprehensive postoperative follow-up for a minimum of 2 years, with assessments conducted at intervals of 1 month, 3 months, 6 months, 1 year, and 2 years. The follow-up procedures encompassed medical history reviews, clinical examinations, colonoscopies, abdominal and pelvic ultrasounds, chest radiography, abdomen, pelvis, and thorax CT scans, urography, and cystoscopies.

Results

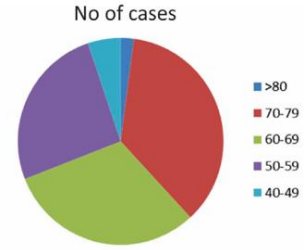
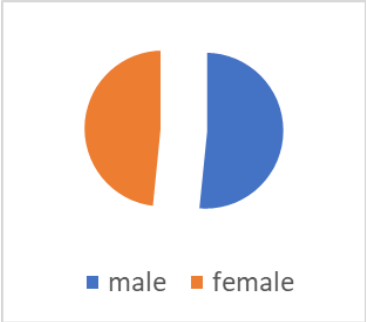


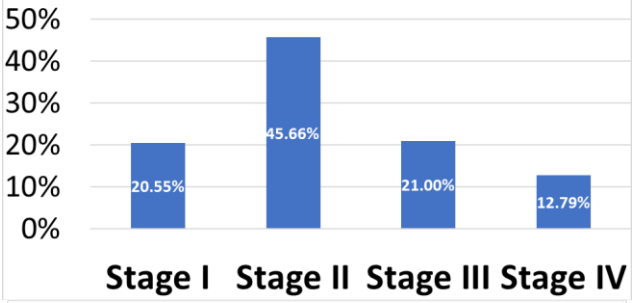
FIGURE 1. *Patients' distribution according to the age group*



Clinical Presentations: Among the patients, 77.63% exhibited rectal reactions, 65.75% reported abdominal pain, 57.53% experienced transit disorders, and 44.29% presented with rectal tenesmus, which was more frequently noted in rectal tumors with lower positions. Additionally, 41.10% of patients showed signs of an anemic syndrome.

Multimodal Oncological Treatment of Rectal Cancer: Pre-surgical oncologic treatment was administered to 87.46% of patients (N = 165), comprising 20.66% (N = 44) receiving radiotherapy, 25.82% (N = 55) undergoing chemotherapy, and 30.99% (N = 66) receiving a mixed oncological treatment. Post-surgical oncologic treatment was administered to 35.68% of patients (N = 76).

FIGURE 2. *Patients distribution based on AJCC oncological stage*



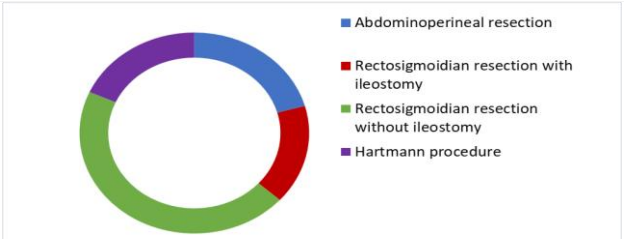


FIGURE 3. *Patients distribution according to the type of surgical procedure*

Surgical procedure	No. of patients	% of patients
Abdominoperineal resection	44	20.65%
Rectosigmoidian resection with ileostomy	34	15.96%
Rectosigmoidian resection without ileostomy	96	45.07%
Hartmann procedure	39	18.30%

Principal Differences Between Patients with Pelvic Recurrence and Those Disease-Free: Notable variations were observed, including a higher rate of post-surgical complications (p = 0.002), particularly wound dehiscence (p = 0.04), a higher rate of surgical reintervention (p = 0.0038), and a worse clinical outcome at discharge (p = 0.04). The majority of patients who experienced pelvic recurrence underwent the Hartmann procedure, with most of them being emergency cases. No significant differences were found in surgical approach (robotic, laparoscopic, or open), the number of days spent in the ICU, length of stay, or the number of days until alimentation restart.

In our study the local recurrence/relapse rate was: rectosigmoid resection with colorectal anastomosis 7%; abdominoperineal resection 9%; Hartmann procedure 15.38%. The rate of recurrence (RR) was also significantly influenced by the stage at diagnostic: stage IV had RR = 31.4% of cases; stage III had RR = 42.4% of cases; stage II had RR = 21% of cases; stage I had RR = 5.2% of cases. When it comes to cancer related death 1st year - 12 patients (2 immediately after surgery and 9 patients

died within the first year) which indicates a survival rate (at 1 year) of 94,4%; 2nd year – 5 patients, resulting a survival rate (at 2 years) of 92,01%.

Conclusions

Rectal cancer patients often present in advanced stages, typically undergoing anterior resection, associated with the lowest recurrence rate. Preoperative radiotherapy significantly reduces the recurrence rate. Late cancer stage at initial diagnosis emerges as a major risk factor for rectal cancer relapse. The Hartmann procedure, performed as an urgent measure in older age groups, was associated with the highest rate of rectal cancer recurrence.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

References

1. Heald RJ, Daniels I. (2005). Rectal cancer management: Europe is ahead. *Recent Results Cancer Res*. 165: 75-81.
2. American Joint Committee on Cancer, (2010). Seventh Edition. *Springer*, 143-170.
3. Farouk R, Nelson H, Radice E, Mercill S, Gunderson L. (1998). Accuracy of computed tomography in determining resectability for locally advanced primary or recurrent colorectal cancers. *Am J Surg*. 175(4): 283-287.
4. Tinca A, Ion D. (2019). Cancerul rectal abordul multimodal actual. Bucureşti: Editura Universitară Carol Davila, 57-63.
5. Vasile I, Munteanu M, Pasalega M, Gugila I. (2005). Semiologie chirurgicală, Craiova: Editura Medicală Universitară Craiova, 230-242.

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