

Sphincter-Sparing Surgery in Patients with Mid and Low Rectal Cancer - Risk Factors for Local Recurrence and Anastomotic Leakage

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Abstract

Background: Rectal cancer is a major health problem. The current treatment of distal rectal cancer involves a multimodality approach aimed at achieving an optimal oncologic control and an increased quality of life.

Purpose: The purpose of this article is to identify the risk factors for local recurrence and anastomotic leakage after sphincter-sparing surgery for low and mid rectal cancer.

Material and Methods: We prospectively analyzed a group of 38 patients with low and middle rectal cancer who underwent sphincter-sparing surgery. Low anterior resection was performed in 32 cases (84.2%) and 6 cases (15.8%) benefited of ultralow anterior resection. Clinical stadialization cTNM included 3 patients (7.9%) T1 stage, 11 patients (28.9%) T2 stage and 24 patients (63.2%) T3 stage. Preoperative radiotherapy was performed in 33 cases (86.4%), and chemotherapy was associated in 20 cases (52.6%).

Results: The stages I and II cancers were prevalent (63.2%), followed by stage III cancers (23.7%) and stage IV cancers (13.2%). The rate of complications of 52.6% (20 cases) was associated with T3 stage cancers. Anastomotic leakage has occurred in 4 cases (10.5%) and tumor recurrence has developed in 3 cases (7.9%). The rate of local recurrence and anastomotic leakage is associated with the number of positive lymph nodes (more than 4 nodes, 5.3%, $p = 0.023$). We found no association between chemoradiotherapy and the risk of local recurrence ($p > 0.05$). Other postoperative complications included intestinal obstruction by adhesions or bowel volvulus (5 cases, 13.2%), postradiation colitis (3 cases, 7.7%), coloanal anastomotic stenosis (1 case, 2.6%), rectovaginal fistula (1 case, 2.6%), ileostomy bleeding (1 case, 2.6%), wound infection (2 cases, 5.3%).

Conclusions: Risk factors associated with local recurrence and anastomotic leakage are aggressive stage tumor, lymph-nodes involvement, neoadjuvant therapy and postoperative anemia. The postoperative outcome was favorable after sphincter preservation surgery and the absence of definitive colostomy had an important impact on the quality of life of the patients with distal rectal cancer.

Key words: rectal cancer, sphincter-sparing surgery, neo-adjuvant chemoradiotherapy, total mesorectal excision