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Research Article

PELVIC LYMPHECTOMY IN RECTAL SURGERY

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ABSTRACT

Introduction In the radical surgery of the neoplasm of the rectum the need to limit the local spread of the tumor aimed at reducing relapses is now accepted the tendency to widen the surgical indications that include the resection of the pelvic lymphatic cell structures potentially responsible for the risk of recurrence, with a resumption of the disease. (1.2.3.4.5) The objective of the present study is to evaluate the lymphectomy under peritoneal conduct in RAs to find indicators that can reduce the risk of relapses and modify surgical tactics. **Materials and methods** From January 2010 to December 2017 consult the database of the AOU "G Rodolico" University of Catania Department of surgical and specialist medical sciences II were treated 16 patients with adenocarcinoma with seat, in sigma-rectum (high) n 6 cases (6.2%), and in the rectum (low) 10 cases (T2b). The clinical signs showed that the clinical examination was present: blood in the stool accompanied by diarrhea, constipation, asthenia, malaise, rapid weight loss and anemia without apparent reasons the surgical treatment implemented in the group of patients examined showed the need for curative intervention with the removal of the middle rectum and the execution of an ultra-low anastomosis. **Results**: The interventions for colic tumor the conservation of the sphincters was implemented in all the treated patients. The postoperative exitus occurred in only n 2 cases (15%), in patients with advanced age (over 80). The anastomosis dehiscence was also present in 2 cases (15%) and the postoperative fistulae in 1 case (7.5%) in this group of patients the presence of local recurrence was 30% (5 cases). the total lymph node counts in patients with local recurrence showed a high rate of tumor positivity, with a total number of lymph nodes removed less than 10, therefore considered to be high risk patients and sent to adjuvant treatment. **Discussion** Despite the changes in technique adopted, both anastomosis dehiscences (15%) and postoperative fistulas (7.5%) occurred, but not bladder and sexual complications as the dissection of the middle rectum was to conduct along the holy plane. The resections of the middle rectum allowed a more comfortable pelvic lymphectomy as confirmed by other AAs (49,50,51,52,53) the radicality was sought to obtain a more favorable survival rate in the presence of interventions with regional lymphectomy. (54,55,56,57) The invasion of the lymph nodes concerned the lateral lymph nodes (common ileac, external hypogastric iliac). **Conclusions** were confined the search for an increasingly radical surgery in the ac of the rectum is aimed at reducing the local diffusion of the tumor and the incidence of pelvic recurrences. The choice of the type of conservative or demolition intervention does not reveal statistical differences in the two treatments is the pelvic lymphectomy with the removal of the lymphatic cell structures with tumor sterilization performed with chemo or adjuvant radiotherapy that raises the survival index and reduces the onset of local recurrences also in our experience.

INTRODUCTION

In radical tumor of the rectum the need to limit the local spread of the tumor aimed at reducing relapses is now accepted the tendency to widen the surgical indications that include the resection of the pelvic lymphatic cell structures potentially responsible for the risk of recurrence, with a resumption of the disease. (1.2.3.4.5) The origin of local and largely extra parietal recurrences and the precocity of the onset (within 2 years) establishes a persistence of the disease due to the tumor residue

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to be found in the lymphatic cell structures that have escaped the resection surgical. (6.7.8.9.10) The tumor diffusion over 2 cm is very rare, thanks to this observation that the distal parietal clearance has been reduced with a prognosis that does not change when a longer section of the intestine is removed, downstream of the tumor . The oncological radicality in the tumors under peritoneal is satisfied when the middle rectum is removed with pelvic and abdominal lymph nodes. The lymphatic tissue is contained in the proper or middle rectum fascia in which the terminal vessels of the inferior mesenteric artery start. (11.12.13.14.15) In the posterior (or sacral) access, the thickness of the middle rectum zone is reduced laterally, leaving the extremity of the rectum uncovered. On the front side and the Denonvilliers belt that also reaches up to 2 cm above the elevators. Therefore the last section of the rectum is devoid both in the anterior and posterior aspect of the middle rectum fascia. (16,17,18,19,20) The formation of a precise lymphovascular entity formed by the rectum and the middle rectum , in which the localization of metastases is accompanied by the absence of important nervous structures in their context, makes this anatomical aspect allows to perform a radical oncological resection and burdened by a low percentage of complications. However, comply with the following rules; 1) the dissection is performed anatomically. 2) Isolation is carried out on the avascular plane (the holy plane) which separates the pre-sacral aponeurosis of the Waldeyer from its own middle rectum fascia. 3) laterally the edges of the anatomic abutment are far from the tumor. This rule regulates therapeutic success because an involvement of the previously anastomosis colon tract tumor, the prognosis worsens dramatically, as confirmed by AA in which disease-free survival was 87% of cases at 5 years, and local recurrences of 3.7% demonstrating how the therapeutic success of the resection was achieved when the neoplasm did not involve the lateral edges of the operated colon (21,22,23,24,25,26) and that the integrity of the middle rectal fascia conditions the oncological radicality in an RA for under peritoneal tumor, whose resection of the bowel is conducted near the elevators of the anus. (27,28,29,30) These surgical indications if associated with the systematic release of the flexures and the colon, with the preparation of the large oment to be allocated to the pelvis, and with a satisfactory congruence of the size and caliber of the colonic segments to be anastomosis by a good vascularization of the lower hemorrhoidal artery and of the short rectal stump. They cause the risk of percentages of postoperative dehiscence or fistula or bladder and sexual complications to remain confined to 3% provided that the dissection of the middle rectum is conducted along the holy plane. (31,32,33,34) The objective of the present study is to evaluate the lymphectomy under peritoneal conduct in RAs to find indicators that can reduce the risk of relapses and modify surgical tactics.

MATERIALS AND METHODS

From January 2010 to December 2017 consulted the database of the AOU "G Rodolico" University of Catania Department of surgical and specialist medical sciences II were treated 16 patients with adenocarcinoma with seat, in the sigma-retto (high) n 6 cases (6.2%), and in the rectum (low) 10 cases (T2b). The clinical signs showed that the clinical examination was present: blood in the stool accompanied by diarrhea, constipation, asthenia, malaise, rapid weight loss and anemia without apparent reasons. All patients performed the occult blood test in the faeces. Digital exploration of the rectum. The rectum colonscopy and the echo endoscopy that allowed the identification of the tumor as well as biopsies on the new formation and determine the parietal infiltration of the tumor. The II level instrumental examinations included: virtual endoscopy, TAC and MRI which treated the TNM neoplasm, as well as highlighting the presence of synchronous tumors. For the preparation of the colon a rapid preparation was adopted by administering the isosmolar solutions in adequate quantities of water (4 lt) the day before without causing alterations of hydroelectrolytic homeostasis. The surgical treatment performed in the group of patients examined showed the need for curative intervention with the removal of the middle rectum and the execution of an ultra-low anastomosis. In relation to the type of surgical anastomosis the manual ultra-low was present in 10 cases, the mechanical RA in 6 cases. The manual was packaged with an eversion of the residual stump, the sec Knight.Griffen mechanics.

RESULTS

The interventions for colic tumor the conservation of the sphincters was implemented in all the treated patients. The postoperative exitus occurred in only n cases (15%), in patients with advanced age (over 80). The anastomosis dehiscence was also present in 2 cases (15%) and the postoperative fistulae in 1 case (7.5%) in this group of patients the presence of local recurrence was 30% (5 cases). Recurrence was associated in 7% (1 paz,) of cases with the presence of MTS at a distance. The disease-free interval averaged 18 months (range 22-16 months). Local recurrence was due to probable tumor exfoliation during surgical resection, or to a lymph node tumor residue. For the anastomosis and recurrence the integrity of the operative piece, the distal and proximal margin of the colon, which were well vascularized and with an average distance of 3.5 cm from the neoplasm, was imported. the control of the circumferential margin in the ultra-low anastomosis corresponded between the middle colon and the rectal abutment. Finally, the total lymph node counts in patients with local recurrence showed a high rate of tumor positivity, with a total number of lymph nodes removed less than 10, therefore considered to be high risk patients and sent to adjuvant treatment. Fig 1,2

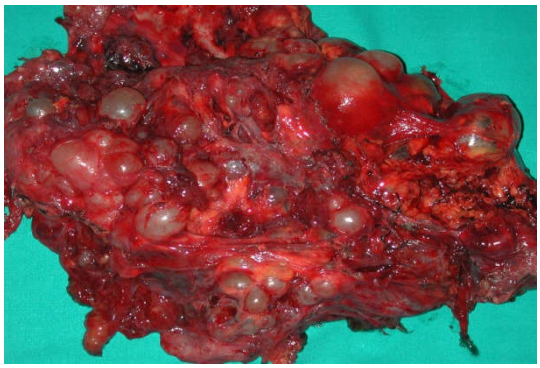

Fig 1 pelvic lymph nodes with mts

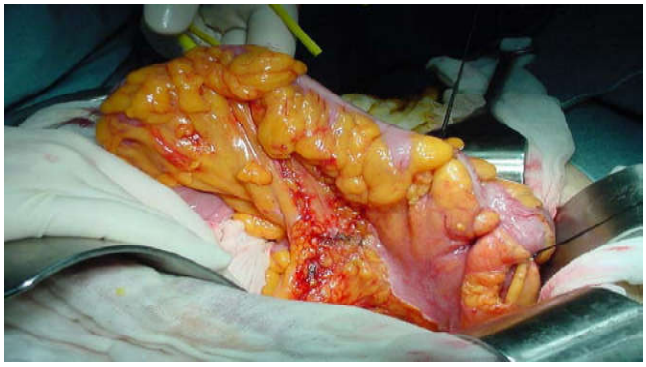

Fig 2 rectum with lymphectomy

In the remaining group of patients the staged lymph nodes were on average above 12 with the absence of tumor lymph node positivity. Operative times were on average long (5-6 hours), and the stump cleaning was on average more investigative. The survey conducted showed that in patients with relapses a longer distal stump was maintained to have more fabric available to obtain an easy anastomosis. However, this technique also left the lynphatic cell tissue located distally to the neoplasm or in a case close to it.

DISCUSSION

In consideration of the parameters that were analyzed, and with the surgical techniques adopted, attention was paid during the surgical intervention to the use of the dilators before introducing the anvil into the loop with a preventive administration of glucacone before of the execution of the anastomosis, in order to adequately arrange the loop and without causing excessive distension. (35,36,37,38,39) in assembling the stapler it was avoided the tightening not to determine the detachment accident of the anvil. (40,41,42,43) Sectional flaps were stripped of fat for a short time, so that the vasculature was maintained. (44,45,46,47,48) the absence of tension of the items to be anastomosis with the circular stapler to prevent the walls from becoming thinner with a negative consequence in the closing of the staples, in the tobacco bags if the points were applied near the intestinal border and the resection rings were regularly checked. the anastomosis were located on average within 6 cm of the anus-cutaneous line. Despite the changes in technique adopted, both anastomosis dehiscences (15%) and postoperative fistulas (7.5%) occurred, but not bladder and sexual complications as the dissection of the middle rectum was to conduct along the holy plane. The resections of the middle rectum allowed a more comfortable pelvic lymphectomy as confirmed by other AAs (49,50,51,52,53) the radicality was sought to obtain a more favorable survival rate in the presence of interventions with regional lymphectomy. (54,55,56,57) The invasion of the lymph nodes concerned the lateral lymph nodes (common ileac, external hypogastric iliac) and were confined. In patients with extra parietal tumors, the lymph nodes were all positive for tumor and grading (G 3) was unfavorable, and the removal of the rectum was also associated with the removal of lateral pelvic lymph nodes with the integration of radiotherapy and chemotherapy. In our opinion, the intervention of enlarged lymphectomy remains of dubious utility due to the increased risk of neurological (bladder and sexual) complications and greater invasiveness. for which we have opted for these patients an equally effective adjuvant therapy. (58,59,60, In the surgical times, attention is paid to the sparing of nerve structures. At first the dissection of the posterior and posterior lateral rectum was carried out, then anterior for 2 cm from the front of the right bladder reflection was dissociated from the peritoneal prostate zone and detached from the near prostate plexus, then holding the rectum to dissect the wings which remain the only connection of the organ with the sacral pelvic walls. (61,62,63.) The use of radical surgery was performed in the presence of considerable experience of the operator in order not to run into greater mortality and morbidity. (64,65,66) Extended lymphectomy had indications in our experience when we were in the presence of a high tumor grading and a T3-T4 action stage, the risk of major post-operative complications is already used by the oncological radicality adopted and aimed at increasing the free time from the disease, with a 5-year survival ranging between 46-65.8%. The study of after the intervention sphincter bladder dysfunctions was conducted through instrumental investigations (cystomanometry, uroflussimetris, post-urinal residual evaluation, electromyography of the perineal plane) associated with the penile doppler examination. In these instrumental evaluations emerges the absence of sphincter bladder dysfunctions and sexual. Therefore the respect and integrity of nerve structures contribute to reducing postoperative complications.

CONCLUSIONS

The search for an increasingly radical surgery in the rectum is aimed at reducing the local spread of the tumor and the incidence of inside the pelvis recurrences. The choice of the type of conservative or demolition intervention does not reveal statistical differences in the two treatments is the pelvic lymphectomy with the removal of the lymphatic cell structures with tumor sterilization performed with chemo or adjuvant radiotherapy that raises the survival index and reduces the onset of local recurrences also in our experience. In the evaluation of pelvic lymphectomy our experience, though limited, shows us how the modification of surgical tactics with the possibility of removal of the middle rectum with all the risks it entails, and to be implemented when this intervention has healing purposes. In the palliative interventions the AAP still offers today more useful in increasing the incidence of the free disease interval.

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