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Surgical Approach of Degenerated Giant Rectal Villous Adenoma in Elderly Patient

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Abstract

Villous tumors of gastrointestinal area are infrequent and villous adenoma is a type of polyp that grows in the colon and other spaces in the gastrointestinal tract and sometimes in other parts of the body. These adenomas may turn into malignant. Their detection is, typically, fortuitous during an endoscopic investigation. For their degenerative potential and recurrence the complete excision of villous tumors is highly recommended. Voluminous villous tumors are the main cause of limitation for endoscopic resection and require a surgical management. Great morbi-mortality rate and functional conditions of surgery have directed to a growing attention in many further procedures which can expose to recurrence risk particularly in the rectum. We present our experience in dealing a case of huge villous tumors of the rectum in elderly patient.

Keywords: Villous tumors; Endoscopic approach; Tumors; Surgery

Introduction

Endoscopic approach is the best choice in treatment of villous tumor. Nonetheless, the dimensions and the site can confine the use of endoscopic resection. Surgery is, at that time, indicated but the selection between major surgery and minimally invasive surgery still challenging. The incidence of colorectal adenomatous polyps was described in around 25% of the population aged above 50 years [1]. Therefore, adenomectomy of colorectal adenomas clues to an extensive weakening in the incidence of colorectal carcinomas [2]. Endoscopic ablation of villous adenomas is the technique of choice for removing this type of polyps. On the other hand, 3-10% of the lesions have no indication for endoscopic resection due to technical limits [3]. Transanal surgical technic may be used to remove adenomatous polyps in the lower part of the rectum; nevertheless the polyps of the upper and middle rectum cannot be excised by this technic [4]. Surgical resection either by open or laparoscopically assisted approach of the colon and rectum is the technic of choice for the polyps that have no indication for resection by endoscopic way. Though, anterior resection of the rectum may, on some situations; increase suspicions as to the resection margin and are difficult to be achieved in obese patients with a constricted pelvis and in large tumors of low rectum [5].

Clinical Case

An 89-year-old woman, presented with a history of hypertension with chronic cardiac disease associated with deep venous thrombosis under anticoagulant treatment. She was hysterectomized since 18 months. The patient was oriented to our surgical department with a past of bloody diarrhea associated with abdominal pain that started six months before and was accompanied with weight loss of 4 kg in one year. The digital rectal examination found a rectal mass confined in the lower rectum from 6 cm of the anal verge. This lesion was soft, stagnating attached to the posterior wall of the lower rectum. The laboratory investigations were within normal value. The prothrombin time was 38.5 and INR 2.5. The tumors markers were not elevated. Total colonoscopy showed a voluminous sessile lesion involving the posterior hedge of the rectum, distant 4 cm from the anal verge, and 10 cm long. Endoscopic resection of a three small polyps localized in the transverse and sigmoid colons were done and the result of biopsies was hyperplasic polyp (Figure 1). The biopsies were performed for the large sessile polyp and the histopathological result was in favor of villous adenoma with low grade of dysplasia.

Abdominal computed tomography showed budding tumor of the posterior wall of the lower rectum without extension beyond the wall with no other major modifications of neighboring structures (Figure 2 and 3).

Discussion

Villous tumors of digestive tract are rare and represent a pre malignant lesion. They are well defined as huge sessile lesion with villous structure [6,7]. From a histopathological point of view these are most often, villous adenomas [6]. In the literature the most described villous tumors are localized in the rectum and the colon [8]. Their possible malignant degeneration is estimated from 40 to 50% of cases. It will be determined by seize and the degree of dysplasia [9,10]. The risk of increasing invasive colorectal carcinoma from adenomatous polyps is known since a long time and gives a justification for removing such benign lesions [11]. The mainstream of colorectal polyps recognized by colonoscopy is insignificant and deals with no difficulty for endoscopic resection [12,13]. Despite that, in situations such as for our patient resection by endoscopy becomes difficult. This presentation of low rectal villous adenomas may need surgical treatment. In overall, the discovery of these lesions is fortuitous during an endoscopic investigation. The clinical presentation is not specific; the symptomatology is variable ranging from simple abdominal pain to bloody diarrhea with anemia. Large tumor may cause intestinal obstruction. Secreting lesions may be discovered by unlimited water and electrolyte disorders as a consequence of prostaglandin secretion. This can lead to the appearance of a Mckittrick-Wheelock syndrome with acute renal failure, metabolic and hemodynamic disorders [8,14]. Generally, hemorrhage is induced by the rectal examination or after rectal biopsy. The diagnosis can be

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acknowledged at the endoscopic inspections with pathologic studies of the biopsy example. Magnetic resonance (MR) and endorectal ultrasound (ERUS) are more accurate to evaluate parietal and sphincter infiltration of rectal tumor than CT scan [8,15]. Worrell et al. in their meta-analysis, recommend the usage of a biopsy within an ERUS examination in order to reduce the number of misdiagnosed local degeneration [16]. For of their potential of degeneration and recurrence, the removal of villous tumors must be complete and in one bloc with free margins. Sessile lesion necessitates endoscopic mucosal resection (EMR) which can offer a one bloc sampling [10,17,18]. Endoscopic sub mucosal dissection (ESD) is a new technique which can remove a huge tumor. This situation is possible when the lesion is limited to the mucosa [18]. The most important challenge is represented by the endoscopic resection of a huge circumferential villous adenoma of the rectum. Endoscopic resection of bulky villous tumor with flat surface is a very high challenge and may result in significant risk of perforation of the rectum. If the perforation occurs at the level of the high rectum (reflection of the peritoneum) this can lead to serious complications (peritonitis). Another significant complication may occur after endoscopic resection of a circumferential lesion: is the occurrence of a stenosis [19]. The huge villous tumor constitutes a restriction for endoscopic removal and requires a surgical management [20]. Surgical tactic depends on the size and the location of the tumor. Transanal endoscopic microsurgery (TEM) is, also, a well-meaning substitute compared with major surgery in mid and upper rectal lesions. It is a minimally invasive technique and it permits the surgeon to operate on big lesions of the proximal rectum and eradicate the lesion en bloc, without taking to make an abdominal incision [21]. But it is technically





complex and requires long time training and expansive material [22]. This procedure uses an exactly designed rectoscop which is connected to a three-dimensioned binocular system with a continuous insufflation of the rectum. This gives a distended intra rectal space with a intensification of the view. Therefore the full-thickness and en-bloc removal is accomplished with acceptable resection margins around the lesion [23]. Sutures are obligatory in anterior polyps which are lying above the peritoneal reflection in order to avoid rectal perforation with severe complication (generalized peritonitis) [24]. TEM suggest mechanism comparable to major surgery. This method is restricted to specialized centers because of the high cost of the instruments and the long learning period [23]. Concerning the lesions of upper and mid parts of rectum anterior resection gives the benefit for a complete resection of the lesion. Nevertheless, in tumors of distal rectum, near the anal canal, it is difficult to achieve an acceptable resection by abdominal approach, since the margins are deficient. This conception of a low transanal colorectal anastomosis is not new and was described first by Maunsell more than 100 years ago for the treatment of rectal cancer, with the advantage of sparing sphincter function [25]. The technique proved functioning and provides the impression to be a well alternate for the method of large adenomatous and circumferential lesions of the rectum that are difficult to be removed by other techniques. A new local transanal approach was recently proposed using a single port trocar with conventional laparoscopic material which can be inserted through the anus. This procedure is accessible to laparoscopic surgery and appears to be safe and simple been whole with lesser cost compared with TEM [26]. Segmental resection is, usually, enough in large lesions since the removal has well executed [27]. For our patient, because of her general condition, radical surgery cannot be performed, and conventional transanal resection appears to be safe and effective with a close follows up. We realised a resection of the tumor through the anal canal with suture of posterior wall of the lower rectum (Figure 4).

Conclusions

Villous adenomas are rare and represent a type of polyp which growth in the colon and rectum. They are characterized by their tendency to recur and their possible potential of degeneration of residual tumors. A total removal as one bloc with tumor free margins is highly necessary. The choice of the technique should be made considering the high mortality and the morbidity rates of major surgery and the convenience of the other surgical procedures. Even though the recently described procedures for rectal villous tumors offer good results with low rates of mortality and morbidity, they are still not well-known in all countries and it also requires a long learning curve and increases the financial costs of the procedure

Conflicts of Interest

The authors report no conflicts of interest in this work.

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Surgical Approach of Degenerated Giant Rectal Villous Adenoma

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