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CASE REPORT

Use of Endo-GIA Stapler in Transanal Mass Excision: Case Report

Transanal Kitle Eksizyonunda Endo-GİA Stapler Kullanımı: Olgu Sunumu

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ABSTRACT

Rectal cancers comprise approximately 1/3 of colorectal cancers. Tumors tha treach the submucosa on the rectum wall but do not overcome the submucosa are called early rectal cancers. T1 and T2 early-stage rectal cancers can be treated by transanal local excision. In this case report we present a 64-year old patient with a vegetating mass, 6 cm from anal verge, diagnosed with intramucosal adenocarcinoma. The suggested operational procedure was abdominoperineal resection, which she did not consent and referred to our clinic. She was performed a transanal resection the tumor using an Endo-GİA stapler.

Keywords: Transanal, mass, Endo-GIA

ÖZ

Rektum kanseri kolorektal kanserlerin yaklaşık 1/3'ünü oluşturmaktadır. Rektum duvarında submukozaya uzanan ancak submukozayı aşmamış tümörlere erken rektum kanseri denir. T1 ve T2 erken evre distal rektum kanserleri anal yoldan (transanal) lokal eksizyonla tedavi edilebilirler. Bu olgu sunumunda, anal kanala 6 cm mesafedeki intramukozal adenokarsinoma tanılı vejetan kitleye abdominoperineal rezeksiyon önerilen ancak bu teklifi kabul etmeyip kliniğimize müracaat eden 64 yaşındaki kadın hastaya Endo-GİA stapler kullanarak uyguladığımız transanal rezeksiyon deneyimimizi sunmak istedik.

Anahtar Kelimeler: Transanal, kitle, Endo-GİA

Introduction

Colorectal cancer is the third most common cancer among all cancers. Approximately 1/3 of colorectal cancers constitute rectal cancer.[1,2] Various definitions are used according to tumor propagation in rectum cancer and whether the tumor can be removed completely by surgery. Early rectum cancer terminology is used for T1 tumors extending but not exceeding to the sub-mucosa.[3] T1 and T2 distal rectal cancers can be treated by anal approach (transanal) by local excision.[4] In addition, transanal local excision has a low morbidity rate in patients who cannot tolerate major abdominal surgery due to comorbidities, and who do not want abdominoperineal resection (APR) surgery, and who may have short life expectancy due to diffuse distant metastasis. The transanal pathway is the most commonly used method for local excision. With the traditional transanal approach, tumors located in the distal and middle rectum (up to 10 cm proximal to anal verge) can be reached. The aim of this approach is the removal of rectum cancer at a minimum depth of 1 cm lateral margins and rectal fat tissue with full-thickness excision technique, within clean surgical margins. The remaining defect is closed to the primer. If the excision limits are not clear, radical resection is considered.[5,6,7]

Some authors have described the transanal removal of large rectal adenomas with gastrointestinal anastomosis (GIA) staplers and demonstrated how endoscopic linear stapler can be adapted to excision with optimal results.[8,9,10,11,12] Transanal Endo-GIA may be used in large-volume lesions in the lower and middle part of the rectum, and in moderate or severe dysplasic villous polyps or carcinoma in-situ.

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In this paper, we present a case of carcinoma in-situ which we resected using the transanal approach with Endo-GIA stapler (Endo-GIA™ reinforced reload with tri-staple™ technology/medtronic/United States Surgical Corp.).

Case Report

A 64-year-old female patient presented with rectal bleeding, rectal fullness and tenesmus complaints. A broad-based vegetan mass was seen in the colonoscopy, in the rectosigmoid region and in the rectum proximal polyps and in the ampulla recti. *Polyps were excised* and multiple biopsies were taken from vegetative masses.

As a result of pathology, tubulovillous adenoma structure with high grade dysplasia in large areas excised for polyp excised (intramucosal adenocarcinoma developed on the basis of tubulovillous adenoma with high grade dysplasia) and tumoral tissue forming cribriformity towards lamina propria in several microscopic areas and intact surgical margin were reported. Biopsies of the vegetative mass did not show significant polyp structure, and the specimens were fragmented and high grade dysplasia, and they were reported as tumoral tissue (intramucosal adenocarcinoma) forming cribriformity toward lamina propria in several microscopic areas.

Abdominal magnetic resonance imaging was performed at the external center and a lobulated contoured mass of 36x26x19 mm was observed on the posterior wall 6 cm proximally from the anal canal in the rectum. Mezorectal and prerektal fascia were preserved. There were 7 LAPs with perirectal 4-7 mm diameter unrelated to malignancy. The appearance of other organs and structures was normal. The patient was informed about APR surgery at the center, but the patient refused to undergo this operation. The patient presented to our clinic for sphincter protective surgery. After preoperative evaluation, the patient with T1 rectum tumor was informed about the progression of the disease and all possible risks and recommended transanal mass excision. The patient underwent mass resection with a transanal approach in the lithotomy position with endoscopic GIA stapler (Figures 1, 2, 3 and 4). The patient was discharged on the second day.

The pathology results of the removed tissue revealed intramucosal carcinoma, tubulovillous adenoma with high dysplasia, intramucosal carcinoma focus 0.3 cm, stromal invasion and stalk invasion were not seen in the sample. Adjuvant therapy (chemoradiotherapy) was not planned after the operation. The patient's informed consent was obtained for presentation as case report. During the 5-month follow-up of the patient, no complications or early signs of local recurrence were found.

Figure 1. Pre-processing of the mass

Figure 2. Show the process of resection with Endo-GIA stapler

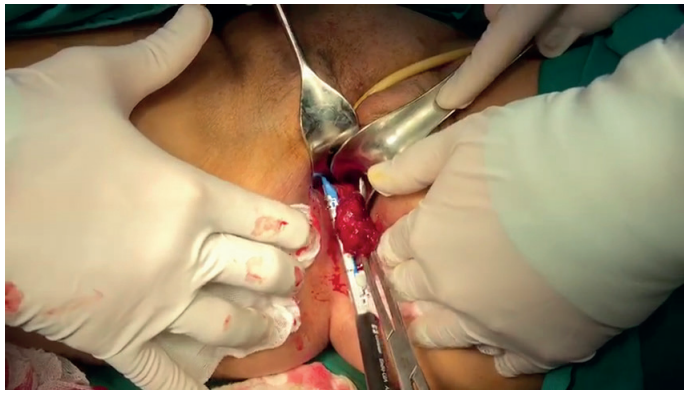

Figure 3. Show the process of resection with Endo-GIA stapler

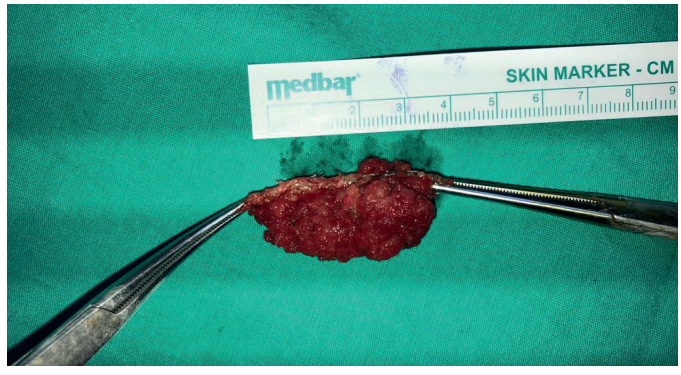

Figure 4. View of the mass after resection

Discussion

The main indication for the use of Endo-GIA in the lower and middle rectum masses is the excision of benign tumors, but radical oncologic surgery can be performed successfully in cases of *in situ* carcinoma[13]. Since total mesorectal excision (TME) is shown to be a safer technique in T1 rectum cancer, this should be the preferred method.[14] However, we underwent transanal mass excision surgery because of the patient's preference for sphincter sparing surgery. In fact, it is not the right approach to compare the transanal mass excision with TME. However, transanal resection with Endo-GIA is comparable to conventional transanal excision and transanal endoscopic microsurgery (TEM). Endo-GIA has the following advantages:

- Low risk of complications,
- Less or no bleeding during the procedure,
- Non-complicated post operative period and shorter operative time,
- Always a one-step procedure,
- Early oral intake,
- Shorter hospital stay,
- Postoperative less pain,
- A cleaner surgical margin for analysis.[13]

In the transanal resection of the Endo-GIA, the lesion is more easily accessible as a surgical technique. This advantage is much more pronounced compared to conventional transanal excision and TEM. Moreover, Endo-GIA is cheaper than the TEM device which is not available anywhere, and it is easier to obtain and apply. There are two disadvantages associated with the use of Endo-GIA. These; the distance of the lesion to the anal canal is not more than 10 cm and its cost is higher than the transanal conventional excision. On the other hand, with this technique, in the case of a surgical margin containing tumor cells or a tumor larger than T1 in the pathology, a radical surgery can be performed with a transabdominal approach without any other complication.[13]

Conclusion

Transanal excision is an appropriate surgical technique in patients who have been staged well and are not considered to be invasive, and who do not accept major surgery or ostomy. We recommend the use of endoscopic stapler in such appropriate cases because of its advantages to other methods in terms of surgical technique.

Ethics

Informed Consent: The patient's informed consent was obtained for presentation as case report.

Peer-review: Externally peer-reviewed.

Authoring Contributions

Surgery and Medical Practice: M.T.Ö., Ş.K., Concept: Ş.K., Design: Ş.K., Data Collection or Processing: Ş.K., M.D., Analysis or Interpretation: M.T.Ö., Ş.K., Literature Search: Ş.K., Written: Ş.K., M.T.Ö.

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