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TRANSANAL EXCISION IN EARLY RECTAL CANCER

INTRODUCTION

The primary purpose of rectal cancer management is to achieve complete tumor removal while preserving the rectum and to maintaining the quality of life. Total mesorectal excision (TME) still remains the gold standard for rectal cancer, especially in cases where the tumor has show spread beyond the mucosal layer, involving surrounding tissues and lymph nodes. However, transanal excision (TAE) has become an effective alternative for patients with early-stage tumors, particularly those located in the lower and mid rectum. This technique, a rectum preserving surgery, has gained attention as a less invasive option for appropriately selected patients. (1, 2, 3)

TAE has traditionally been used for benign conditions, such as adenomas and early-stage cancers, where tumors are confined to the mucosa or submucosa and do not have signs of advanced spread. For tumors in the distal rectum (within 4 cm of the anocutaneous line), TAE can provide a minimally invasive solution with low morbidity. Despite its advantages, the decision to perform TAE should be based on a careful assessment of clinical and diagnostic findings, patient factors, and tumor characteristics. (3, 4)

This report examines three cases of early rectal tumors, initially suspected to be malignant, and discusses the role of TAE as both a diagnostic and therapeutic procedure for managing these tumors.

CASE REPORT

Three patients presented with symptoms including rectal bleeding, mucus in the stool, and difficulty with defecation. On diagnostic workup, rectal tumors were identified in the distal rectum, located no more than 4 cm from the anocutaneous line. Clinical examination revealed tumors with irregular surface contours and a broader base, raising suspicion of malignancy. Although repeated biopsy results confirmed

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the presence of tubulovillous adenomas with high-grade dysplasia, and there were no signs of malignancy, the suspicious features of the tumors prompted additional diagnostic evaluation.

To assess the extent of the lesions and resolve the diagnostic uncertainty, pelvic MRI was conducted on all three patients. The MRI findings were consistent with malignancy, leading to the decision to proceed with transanal excision (TAE) in all cases. Histopathological examination of the excised specimens confirmed early-stage rectal adenocarcinoma, with clear resection margins, indicating complete tumor removal.

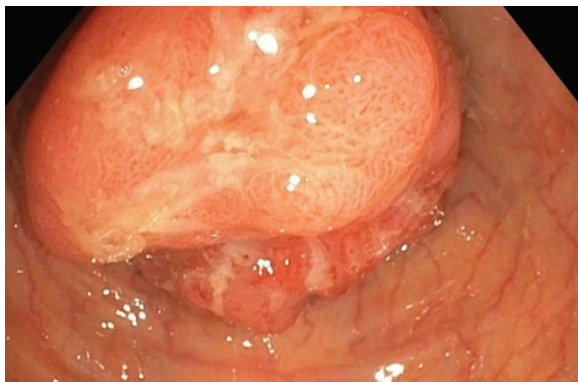


Figure 1. MR image of rectal tumor lesion

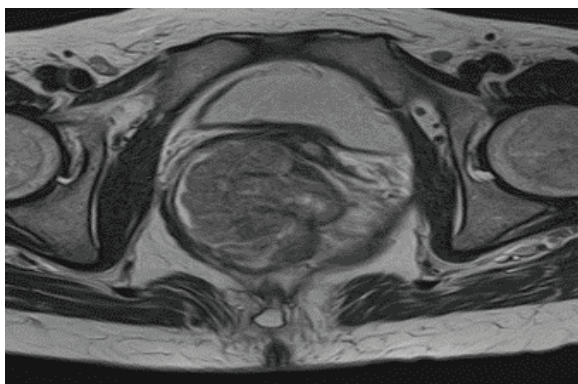


Figure 2. Colonoscopy: Image of rectal tumor

Postoperatively, all patients were reviewed by the Oncology board, which recommended continued surveillance through regular follow-up.

The follow-up period ranged from 18 to 30 months and included a combination of laboratory tests, endoscopic evaluations, and imaging studies. Throughout this period, no recurrence of the disease or symptoms was observed, confirming the success of TAE as an effective diagnostic and therapeutic procedure for early rectal adenocarcinoma.

DISCUSSION

The decision to perform transanal excision (TAE) requires a multifactorial assessment, considering various factors such as the tumor's location, size, histological grade, and the patient's overall health status. An individualized approach is paramount, as TAE is particularly beneficial for patients who are not suitable candidates for more extensive surgical options, including those with significant comorbidities or advanced age. In cases of early rectal cancer, particularly T1 tumors, TAE offers a less invasive, rectum-preserving alternative to more radical surgical approaches, and can provide satisfactory outcomes in appropriately selected patients (5, 6, 7).

Indications for TAE in early rectal cancer include tumors that are smaller than 3 cm in size, confined to the mucosal or submucosal layers, and involving less than one-third of the rectal circumference. Additionally, tumors with low-grade histology, as well as the absence of lymphovascular or perineural invasion, are ideal candidates for TAE. For patients with early-stage tumors that do not meet these strict criteria, TAE may still be considered, especially if imaging studies suggest malignancy while histopathological findings are inconclusive. In such instances, TAE serves a dual purpose, offering both diagnostic and therapeutic benefits (6, 8, 9).

TAE has demonstrated effectiveness for patients with significant comorbid conditions or advanced age, for whom traditional, more invasive surgical procedures may present higher risks. In such cases, TAE offers a less invasive option that preserves rectal function while achieving tumor resection. This makes it an attractive alternative for patients who are not candidates for more radical approaches, especially when the risks associated with major surgery outweigh the potential benefits (5, 7, 10, 11).

However, it is important to acknowledge that TAE is not suitable for all rectal cancers. Tumors that are too large, involve substantial portions of the rectal wall, or exhibit signs of lymphatic spread are contraindications for TAE. Furthermore, the technique requires a high level of surgical expertise to ensure clear resection margins and to minimize the risk of local recurrence. In the cases presented in this report, the tumors were appropriately staged for TAE, and the procedure led to favorable outcomes, including clear resection margins, with no recurrence during follow-up (12, 13, 14).

In cases where TAE is not suitable, such as in locally advanced rectal cancer or tumors with unfavorable characteristics, total mesorectal excision (TME) remains the gold standard. TME involves the complete removal of the rectum and surrounding mesorectal tissues, ensuring clear resection margins and reducing the risk of local recurrence. This approach is crucial for patients with more extensive disease and is associated with improved survival outcomes. While TME is more invasive, it is the most effective procedure for managing rectal cancer beyond the early stages and for tumors with high-risk features such as lymphovascular or perineural invasion (10, 15).

CONCLUSION

Transanal excision remains a valuable, rectum-preserving option for selected patients with early rectal cancer or benign lesions, particularly those with tumors located in the distal rectum. As demonstrated by the cases discussed, TAE can effectively treat tumors with favorable histological features and provide clear resection margins, leading to successful long-term outcomes. Regular follow-up is crucial for detecting potential recurrences, and TAE offers a less invasive alternative to more extensive surgical procedures in appropriately selected patients. However, the question of whether transanal excision is oncologically safe remains to be fully addressed, and future studies will shed light on this issue, along with further observations during the follow-up of our patients.

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