

## 34. BÖLÜM

### ***TRANSANAL ENDOSkopİK MİKROCERRAHİ (TEM)***

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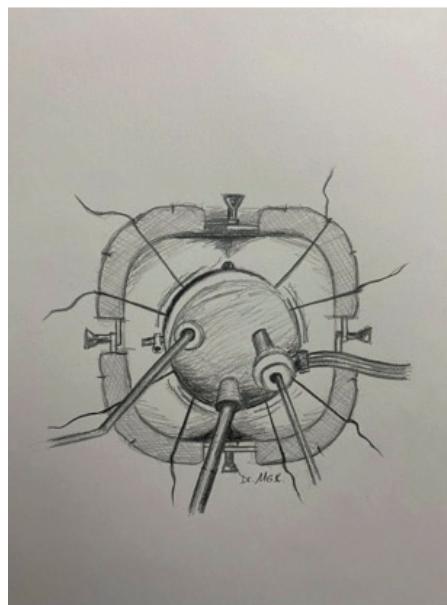
#### **Giriş**

Transanal endoskopik mikrocerrahi (TEM) 1980'lerde Almanya da ilk olarak Profesör Gerhard Buess tarafından geliştirilmiştir.<sup>1</sup> Dr. Buess, Almanya'daki Richard Wolf Company ile işbirliği yaparak transanal endoskopik cerrahi için gerekli özel aletleri geliştirdi. TEM ilk olarak 1983'te rutin klinik uygulamaya sokulmuştur.<sup>2</sup> Daha sonra dünya çapında birçok merkezde eğitim kursları açılarak, pek çok ülkeye tanıtılmış ve tekniğin yaygınlaşması sağlanmıştır. Ayrıca, klinik faydalalarını ve avantajlarını desteklemek için kendi klinik deneyimlerini paylaşmışlardır.<sup>3</sup>

Rektal tümörlerin transanal eksizyonu geleneksel aletlerin erişim güçlükleri nedeniyle sınırlıdır. TEM üst rektumdaki lezyonları daha iyi ortaya koyar, lezyonun kaliteli görüntülemesi ve kolay erişim sağlar.<sup>4</sup> TEM ile orta ve üst rektumdaki hemen hemen her adenom çıkarılabilir. TEM karsinoid, rektal prolapsus, rektal divertiküler hastalık, erken evre (pT1) karsinomlar ve rektal kanserlerin palyatif rezeksyonunda deneyisel olarak kullanılmaktadır.<sup>5</sup> Ameliyat öncesi hastalara yapılacak olan Bilgisayarlı Tomografi (BT), Manyetik Rezonans Görüntüleme (MRG) ve Endorektal Ultrasonografi (USG) ile yapılacak evreleme sonrası uygun vakalara lokal eksizyon kararı verilir.<sup>6,7</sup> Radikal cerrahiyi savunanlar, rektumun çevresindeki lenfatik drenaj ile birlikte eksizyonunun en iyi tedavi şansı

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Resim 1. Anal rektoskop takılan hastanın operasyon görüntüsü

## KAYNAKÇA

1. Buess G, Theiss R, Hutterer F, et al. Transanal endoscopic surgery of the rectum - testing a new method in animal experiments [in German]. Leber Magen Darm. 1983;13(2):73-77.
2. Buess G, Kipfmüller K, Hack D, et al. Technique of transanal endoscopic microsurgery. Surg Endosc. 1988;2(2):71-5.
3. Buess G, Kipfmüller K, Ibald R, et al. Clinical results of transanal endoscopic microsurgery. Surg Endosc. 1988;2(4):245-50.
4. Saclarides TJ. Transanal Endoscopic Microsurgery. Clin Colon Rectal Surg. 2015;28(3):165-75.
5. Heidary B, Phang TP, Raval MJ, et al. Transanal endoscopic microsurgery: a review. Can J Surg. 2014;57(2):127-38.
6. Kav T, Bayraktar Y. How useful is rectal endosonography in the staging of rectal cancer? World J Gastroenterol. 2010;16(6):691-7.
7. Feeney G, Sehgal R, Sheehan M, et al. Neoadjuvant radiotherapy for rectal cancer management. World J Gastroenterol. 2019;25(33):4850-69.
8. Kunitake H, Abbas MA. Transanal endoscopic microsurgery for rectal tumors: a review. Perm J. 2012;16(2):45-50.
9. Middleton PF, Sutherland LM, Maddern GJ. Transanal endoscopic microsurgery: a systematic review. Dis Colon Rectum. 2005;48(2):270-84.
10. Ramirez JM, Aguirre V, Gracia JA, et al. Local full-thickness excision as first line treatment for sessile rectal adenomas: long-term results. Ann Surg. 2009;249(2):225-8.

11. Khoury R, Duek SD, Issa N, et al. Transanal endoscopic microsurgery for large benign rectal tumors; where are the limits?. *Int J Surg.* 2016; 29:128-31.
12. Koebrugge B, Bosscha K, Ernst MF. Transanal endoscopic microsurgery for local excision of rectal lesions: is there a learning curve? *Dig Surg.* 2009;26(5):372-7.
13. D'Ambrosio G, Lamazza A, Palma R, et al. Transanal Endoscopic Microsurgery - Endoscopy assisted treatment of colorectal anastomotic stenosis. *Ann Coloproctol.* 2020;16.
14. Tsai BM, Finne CO, Nordenstam JF, et al. Transanal endoscopic microsurgery resection of rectal tumors: outcomes and recommendations. *Dis Colon Rectum.* 2010;53(1):16-23.
15. Bochove-Overgaauw DM, Beerlage HP, Bosscha K, et al. Transanal endoscopic microsurgery for correction of rectourethral fistulae. *J Endourol.* 2006;20(12):1087-90.
16. Chen W, Chen X, Lin G, Qiu H. Successful repair of recurrent rectovaginal fistula by stratified suture using transanal endoscopic microsurgery: A CARE-compliant case report. *Medicine (Baltimore).* 2016;95(36):e4600.
17. Nepal P, Mori S, Kita Y, et al. Radial incision and cutting method using a transanal approach for treatment of anastomotic strictures following rectal cancer surgery: a case report. *World J Surg Oncol.* 2019 Mar 14;17(1):48.
18. Bloemendaal AL, De Schepper M, Mishra A, et al. Trans-anal endoscopic microsurgery for internal rectal prolapse. *Tech Coloproctol.* 2016;20(2):129-33.
19. Beunis A, Pauli S, Van Cleemput M. Anastomotic leakage of a colorectal anastomosis treated by transanal endoscopic microsurgery. *Acta Chir Belg.* 2008;108(4):474-6.
20. Serra Aracil X, Gómez Díaz C, Bombardó Junca J, et al. Surgical excision of retrorectal tumour using transanal endoscopic microsurgery. *Colorectal Dis.* 2010;12(6):594-5.
21. McCloud JM, Waymont N, Pahwa N, et al. Factors predicting early recurrence after transanal endoscopic microsurgery excision for rectal adenoma. *Colorectal Dis.* 2006;8(7):581-5.
22. Bipat S, Glas AS, Slors FJ, et al. Rectal cancer: local staging and assessment of lymph node involvement with endoluminal US, CT, and MR imaging--a meta-analysis. *Radiology.* 2004;232(3):773-83.
23. Družijanić N, Perko Z, Kraljević D, et al. Harmonic scalpel in transanal microsurgery. *Hepatogastroenterology.* 2008;55(82-83):356-8.
24. Hermsen PE, Ayodeji ID, Hop WH, et al. Harmonic long shears further reduce operation time in transanal endoscopic microsurgery. *Surg Endosc.* 2009;23(9):2124-30.
25. Endreseth BH, Wibe A, Svinsås M, et al. Postoperative morbidity and recurrence after local excision of rectal adenomas and rectal cancer by transanal endoscopic microsurgery. *Colorectal Dis.* 2005;7(2):133-7.
26. Serra-Aracil X, Labró-Ciurans M, Rebasa P, et al. Morbidity after transanal endoscopic microsurgery: risk factors for postoperative complications and the design of a 1-day surgery program. *Surg Endosc.* 2019;33(5):1508-1517.
27. Middleton PF, Sutherland LM, Maddern GJ. Transanal endoscopic microsurgery: a systematic review. *Dis Colon Rectum.* 2005;48(2):270-84.

28. McCloud JM, Waymont N, Pahwa N, et al. Factors predicting early recurrence after transanal endoscopic microsurgery excision for rectal adenoma. *Colorectal Dis.* 2006;8(7):581-5.
29. Jeong WK, Park JW, Choi HS, et al. Transanal endoscopic microsurgery for rectal tumors: experience at Korea's National Cancer Center. *Surg Endosc.* 2009;23(11):2575-9.
30. Stipa F, Giaccaglia V, Burza A. Management and outcome of local recurrence following transanal endoscopic microsurgery for rectal cancer. *Dis Colon Rectum.* 2012;55(3):262-9.
31. De Graaf EJ, Doornbosch PG, Tollenaar RA, et al. Transanal endoscopic microsurgery versus total mesorectal excision of T1 rectal adenocarcinomas with curative intention. *Eur J Surg Oncol.* 2009;35(12):1280-5.
32. Borschitz T, Heintz A, Junginger T. The influence of histopathologic criteria on the long-term prognosis of locally excised pT1 rectal carcinomas: results of local excision (transanal endoscopic microsurgery) and immediate reoperation. *Dis Colon Rectum.* 2006;49(10):1492-506; discussion 1500-5.
33. Borschitz T, Heintz A, Junginger T. Transanal endoscopic microsurgical excision of pT2 rectal cancer: results and possible indications. *Dis Colon Rectum.* 2007;50(3):292-301.
34. Ramirez JM, Aguilella V, Valencia J, et al. Transanal endoscopic microsurgery for rectal cancer. Long-term oncologic results. *Int J Colorectal Dis.* 2011;26(4):437-43.
35. Lezoche G, Guerrieri M, Baldarelli M, et al. Transanal endoscopic microsurgery for 135 patients with small nonadvanced low rectal cancer (iT1-iT2, iN0): short- and long-term results. *Surg Endosc.* 2011;25(4):1222-9.
36. Guerrieri M, Gesuita R, Ghiselli R, et al. Treatment of rectal cancer by transanal endoscopic microsurgery: experience with 425 patients. *World J Gastroenterol.* 2014;20(28):9556-63.