

TRANSANAL EXCISION OF RECTAL CANCER

I. Surgical Options For Rectal Cancer

1. LAR
2. APR
3. Transanal Excision
4. Other local excisions
 - a. Fulguration
 - b. Endocavitary radiation
 - c. Transanal endoscopic microsurgery (TEM)
 - d. Posterior proctectomy – presacral approach (Kraske procedure)
 - e. Transsphincteric approach – division of sphincters (York-Mason)

II. Background For Transanal Excision

1. First introduced for patients with extensive comorbidities, patients refusing APR/colostomy, and patients with distant metastases and short life expectancies

III. Advantages of Transanal Excision

1. Decreased morbidity and mortality
2. Decreased hospital stay
3. Sphincter preservation even in low cancers - better function

IV. Criteria for Transanal Excision

1. Less than 4 cm
2. Location 8cm or less from anal verge
3. Well or moderately differentiated histology
4. Mobile, non ulcerated mass
5. No suspicion of perirectal or presacral nodes
6. Tumor involves less than 1/3 of circumference of the rectal wall
7. Tumor stage T1 (mucosa and submucosa) or T2 (larger, invasion into rectal wall)

V. T3 lesions

1. Patients with tumors that penetrate beyond the submucosa are not good candidates for local excision
2. For T3 lesions (penetrate perirectal fat), radical resection is recommended
3. There is a high local recurrence rate with local excision followed by postoperative irradiation and C.T.

VI. Ideal Resection

1. 1 cm circumferential margin
2. Full thickness excision down to perirectal fat
3. Not fragmented or piecemeal

VII. Adjuvant Therapy

1. Excision probably suffices for T1 unless the margins are compromised or the histology is poorly differentiated. Not done for favorable histology with good margins.
2. For T2 lesions or unfavorable histology, local failure rates are approx. 20%. Recommend postop RT + CT – local control rates of 85-93%

Review of Literature

1. Balani et al. Local Excision of Rectal Cancer. J Surgical Oncology 2000
 - Retrospective review of 328 curative T1 and T2 resections for rectal CA: 219 LAR, 87 APR, 20 LE
 - LE if T1 or T2, no nodal involvement, and distance from anal verge < 12 cm
 - Local recurrence: LE: 0%, Major surgery: 8.5% (p=0.179) – 4 patients T2, 1 patient T1
 - 5-yr survival: LE-87.4%, Major surgery: 83.3% (p=0.764)
 - 5-Yr survival for T1 lesions: LE – 100%, Major surgery: 93%
 - 5-Yr survival for T2 lesions – LE: 62.5%, Major surgery: 80.6% (p=0.228)
 - Cox regression analysis: Type of operation was not an independent predictor
2. Chakravarti et al. Long Term Follow-Up of Patients With Rectal Cancer Managed by LE With and W/O Adjuvant Therapy
 - One of the largest studies comparing local excision with and w/o RT with the longest f/u
 - LE alone may not suffice for lymphatic or blood vessel involvement, poorly differentiated histology, or positive surgical margins
 - Examined long term outcome of T1 and T2 patients treated with and w/o adjuvant therapy
 - Jan 1996 – Jan 1997: 99 patients underwent LE at MGH or Emory
 - 52 patients treated by LE, 47 with LE + adjuvant irradiation – 45 postop and 2 preop - -
 - 26/45 of the RT group had RT + 5-FU CT (5-FU)
 - Mean dose of RT was 53.6 Gy over 5-6 wks
 - RT group: 38/47 had T2 tumors or T1 with high risk histology
 - Results: Tables and graphs
 - Conclusions:
 1. Overall trend toward improved local control and recurrence free survival with RT
 2. For T2, RT significantly improved both local control and recurrence free survival
 3. Adjuvant therapy significantly improved outcome when high-risk pathology or lymphatic or blood vessel involvement
 4. Recommend adjuvant therapy for all T2's and for T1's when there is high-risk pathologic features
 - Criticism of study: Retrospective, extensive subgroup analysis, wide time interval for collection of patients, evolving surgical and radiotherapy techniques

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