Transanal Excision of Rectal Cancer: What Next?

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Disclosures

- Nothing to disclose
Objectives

• Discuss the indications for TAE
• Is local excision safe for ca?
  - Local recurrence rate?
  - Distant recurrence rate?
  - Overall survival rate?
• HOW DO YOU FOLLOW UP?
• What are the ramifications of recurrence after TEM/TAE?

Indications for Local Excision

• Endoscopically unresectable rectal polyp
• T1 cancers
  - No lymphovascular OR perineural invasion
  - Well to moderately differentiated
  - No tumor deposits or budding
  - Negative margins
• T1 –T3 IF….  
  - Pt refuses convention surgery/stoma
  - Pt unfit for major abdominal surgery
  - Palliation
  - In conjunction with XRT and or chemo
  - WITH COUNSELING!!!
Current Techniques

- Traditional transanal excision
- Transanal Endoscopic Microsurgery (TEM)
- (TEO)
- (TaMIS)

Transanal Excision

- < 8 cm from anal verge
- Peritoneal reapproximation is very difficult
- Circumferential lesions are easier
- Good for low lesions
TEM

- Must be reachable by rigid sigm. (<15cm)
- Size of operating proctoscope (4cm)
- Circumferential lesions are possible, but difficult
- Positioning in obese
- Start up costs

TEO

- Must be reachable by rigid sigm. (<15cm)
- Size of operating proctoscope (4cm)
- Circumferential lesions are possible, but difficult
- Positioning in obese
- Pneumorectum changes
TAMIS

- Difficult close to the dentate line
- Difficult in the high rectum
- Circumferential lesions are easier
- Less expensive
- Suction can be difficult without added equipment


Moore, Cataldo, Osler et al. Transanal Endoscopic Microsurgery is more Effective than Traditional Transanal Excision for Resection of Rectal Masses. DCR, 2008; 51: 1026–1031.
Moore, Cataldo, Osler et al. Transanal Endoscopic Microsurgery is more Effective than Traditional Transanal Excision for Resection of Rectal Masses. DCR. 2008; 51: 1026–1031.


- Margins comparable
- 30% of TAMIS group was unable to suture defect
Recurrence after TEM

Adenomas
- 5-12% at 5 years
- All treated with local reexcision

Carcinoid
- 0%

Cancer
- T1 = 0-13%
- T2 = 5-40%
- T3 = 0-100%

TEM vs Radical Resection

Salvage Surgery – Early

• 5/34 - permanent stoma
• Overall survival
  - 1 year – 91%
  - 5 year – 83%
• TME Grade
  - 23 (64%) – good
  - 6 (16.6%) – moderate
  - 7 (19.4%) - poor


Salvage Surgery – Early

• Factors leading to inferior specimen
  - Lower rectum
  - >7 weeks to surgery
  - Full thickness TEM specimen
Salvage Surgery: Late

- Median time to recurrence 1.9 years
- Patterns
  - Mesorectum 35%
  - Lumen 33%
  - Presacral 22%
  - Iliac 9%
  - Distant 18%
  - Both 15%
- R0 = 80%
- 33% sphincter preservation rate
- 5YS 63%

You YN, Roses RE, Chang et al. Multimodality Salvage of Recurrent Disease after Local Incision for Rectal Ca, Dis colon and rectum 2012: 55, 1213-9

Detection

- Rectal endoscopic exam -28%
- CEA rise- 13%
- Abnormal imaging -43%
- Symptoms - 11%

You YN, Roses RE, Chang et al. Multimodality Salvage of Recurrent Disease after Local Incision for Rectal Ca, Dis colon and rectum 2012: 55, 1213-9
Salvage Surgery: Late

- **U Minn**
  - 29 pts
  - 79% - R0 resection
  - Upstaged 93%
  - 39 mo follow up
  - 59% with NED
  (Friel et al., DCR 2002)

- **MSKCC**
  - 50 pts
  - Median time to recur – 20 months
  - 33 mo follow up
  - 97% - R0 resection
  - 5-yr DSS 53%
  (Weiser et al. DCR 2005)

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**Table 1. LE of early rectal cancer**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n/a</th>
</tr>
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<tbody>
<tr>
<td>Location of tumor from anal verge</td>
<td>5.8 ± 2.5 (2.0–10.3)</td>
</tr>
<tr>
<td>CEA level (g0 LE), mean ± SD</td>
<td>2.1 ± 3.0</td>
</tr>
<tr>
<td>Local excision</td>
<td></td>
</tr>
<tr>
<td>Performed at Mayo Clinic</td>
<td>7</td>
</tr>
<tr>
<td>At outside institution</td>
<td>20</td>
</tr>
<tr>
<td>Final pathology of LE specimen</td>
<td></td>
</tr>
<tr>
<td>No invasive cancer identified (Tis)</td>
<td>2</td>
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<tr>
<td>Microscopic focus of cancer, could not be ascertained (Tis)</td>
<td>2</td>
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<tr>
<td>T1</td>
<td>16</td>
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<tr>
<td>T2</td>
<td>7</td>
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<tr>
<td>Pathology</td>
<td></td>
</tr>
<tr>
<td>Performed at Mayo Clinic</td>
<td>7</td>
</tr>
<tr>
<td>Slides reviewed at Mayo Clinic</td>
<td>17</td>
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<tr>
<td>Only pathologic report available</td>
<td>3</td>
</tr>
<tr>
<td>Lymphovascular invasion</td>
<td>7</td>
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<tr>
<td>Absent</td>
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<tr>
<td>Not reported</td>
<td>20</td>
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N = 27, LE = local excision

**Table 2. Clinical staging of salvage multidisciplinary therapy for recurrent rectal cancer after LE**

<table>
<thead>
<tr>
<th>Variable</th>
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<tr>
<td>Location of recurrence after LE</td>
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<tr>
<td>Local control</td>
<td></td>
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<tr>
<td>Median distance to recurrence, wk</td>
<td>62</td>
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<tr>
<td>Prognostic factors</td>
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<tr>
<td>T1</td>
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<td>Pathologic stage</td>
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Salvage Surgery - Late

Table 3
ODDS Ratios for any stoma and colostoma hazard ratios for local recurrence and survival.

<table>
<thead>
<tr>
<th></th>
<th>TEM—TME</th>
<th>TME trial</th>
<th>P-value</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any stoma (OR)</td>
<td>1.20</td>
<td>1 (ref)</td>
<td>0.575</td>
<td>0.64—2.26</td>
</tr>
<tr>
<td>Colostoma (OR)</td>
<td>2.51</td>
<td>1 (ref)</td>
<td>0.006</td>
<td>1.30—4.86</td>
</tr>
<tr>
<td>Local recurrence (HR)</td>
<td>6.8</td>
<td>1 (ref)</td>
<td>&lt;0.0001</td>
<td>2.71—16.96</td>
</tr>
<tr>
<td>Survival (HR)</td>
<td>0.39</td>
<td>1 (ref)</td>
<td>0.061</td>
<td>0.14—1.04</td>
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</tbody>
</table>


Follow up

- Needs to include systemic follow up
  
  - Every 3-4 month, exam, flex sigm and CEA
  - 6 months CT C/A/P
  - Alternating with 6 month MRI’s
Conclusions

• TEM/TAMIS are better than transanal excision
  - Higher negative margin rate
  - Decreased fragmentation
  - Decreased recurrence rate
• TEM is better for closure of intraperitoneal defects (high, anterior lesions)
• TEM/TAMIS is reasonable for low risk T1 cancers or pts unfit for large operation WITH COUNSELING
• TEM
  - Higher local recurrence rate in stage 1a
  - Similar distant recurrence and survival rates
• We need to follow these patients systematically
• Incomplete TME and permanent stoma rate may be higher in salvage resection after TEM followed by RR vs RR alone