Endoscopic stenting of colorectal disease: a single surgeon’s experience

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Background

• Endoscopic stenting has emerged in the last decade as a viable option to treat some colorectal conditions
• Stenting can be beneficial in patients with malignant obstruction
• Its use in benign conditions has been limited
Definitive Treatment

- **Malignant conditions**
  - Metastatic disease
  - Unresectable disease
  - High risk patients

- **Benign conditions**
  - Post-operative complications
  - Prior failed operations
  - High risk patients

Bridge Intervention

- Neoadjuvant chemoradiation
- Medical optimization
- Colonic decompression with bowel preparation
Current Issues

• Most data describes technical feasibility and success

• Short-term outcomes have been described in some studies

• Paucity of long-term results

• The effectiveness and durability of stents in benign conditions is unknown

Objectives

To review our experience and long-term outcomes of endoscopic endoluminal stenting for both malignant and benign colorectal disease
Methods

- Retrospective chart review

- Patients treated with endoluminal stenting at Kaiser Permanente, Los Angeles [2004-2008]

- All stents placed by one board certified colorectal surgeon under endoscopic & fluoroscopic guidance

Outcome Measures

- Technical success rate

- Procedural complications

- Migration rate

- Long-term endoscopic re-intervention

- Need for operative intervention
Results

36 patients [49 stent procedures]
M/F 17/19 [47/53%]
Mean age 65 years (range 32-91)
Definitive Rx 29 (81%)
Bridge Rx 7 (19%)
Mean f/u 15 months (1-42)

Etiology of Strictures

<table>
<thead>
<tr>
<th></th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Malignant</strong></td>
<td></td>
</tr>
<tr>
<td>Colorectal</td>
<td>22</td>
</tr>
<tr>
<td>Ovarian</td>
<td>4</td>
</tr>
<tr>
<td>Bladder</td>
<td>1</td>
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<tr>
<td>Cholangiocarcinoma</td>
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<tr>
<td><strong>Benign</strong></td>
<td></td>
</tr>
<tr>
<td>Post-operative anastomotic complications</td>
<td>6</td>
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<tr>
<td>Diverticular stricture</td>
<td>1</td>
</tr>
<tr>
<td>Radiation</td>
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</tbody>
</table>
Location of Obstruction

- Rectum 56%
- Rectosigmoid 19%
- Sigmoid 11%
- Descending 8%
- Transverse colon 6%

Definitive Rx

N = 29

- Technical Success 21 (72%)
- Failure 8 (28%)

- Elective Operation 1
- Emergent Operation 5
- Declined Operation 2
Bridge Rx

N = 7

Success
5 (71%)

Failure
2 (29%)

Elective operation
5

Emergent operation
2

Technical Failures

- Carcinomatosis
- Tumor fixation
- Prior radiation therapy with pelvic fibrosis
- Prior abdominopelvic operation
Complications [6%]

- Perforation and death 1
- Renal, cardiac failure 1

Stent Migration [24%]

- Benign disease [50%]
- Nonmetal stents
- Stent waist diameter < 25 mm
Long-term Outcome
Definitive Rx

Successful Definitive Treatment
N = 21

Endoscopic re-intervention
7 (33%)

Stent migration
4

Tumor ingrowth
3

Operation for long-term failure
2

Operation for tumor progression
1

Conclusion

• Colorectal stenting is an effective treatment for malignant disease

• Long-term endoscopic re-intervention is common

• Benign conditions are associated with higher migration and failure rate