Advanced Enteral Access

Choosing the Right Tube for You

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Discussion Outline

- Types of Tubes
- Indications for post pyloric tubes
- PEG-J versus Direct J
- Special situations
  - Ascites
  - Tube dislodges
Types of Tubes

• Technique
  – Surgical vs. radiology guided vs. endoscopic

• Short term vs. long term
  – Nasogastric, nasojejunal
  – PEG, PEG-J, Direct PEJ

• Pre vs. Post Pyloric
The Endoscope
Short Term Tubes

• Nasoenteric Tubes (NGT, NJT)
  – Intended for usage up to 4 weeks
  – NGT placed into stomach by feel
  – NJT placed into small bowel under endoscopic guidance

<table>
<thead>
<tr>
<th>Methods</th>
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<tbody>
<tr>
<td>Drag and pull</td>
</tr>
<tr>
<td>Over the guidewire</td>
</tr>
<tr>
<td>Through the scope</td>
</tr>
<tr>
<td>Transnasal endoscopy</td>
</tr>
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Long Term Tubes

- Pre-Pyloric
  - PEG

- Post Pyloric
  - JET PEG
  - Direct PEJ
PEG

- Percutaneous endoscopic gastrostomy

Transillumination
Indentation
Incision
Tube Insertion

PEG Procedure
JET-PEG

- PEG placed
- Jejunal extension
  - Passed through PEG
  - Grasp and drag

<table>
<thead>
<tr>
<th>Pro</th>
<th>Con</th>
</tr>
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<tbody>
<tr>
<td>Single stoma to drain and feed</td>
<td>Extension placement difficult</td>
</tr>
<tr>
<td>Take advantage of existing PEG</td>
<td>Extension migrates or clogs</td>
</tr>
</tbody>
</table>
Direct PEJ

- Tube placed directly into jejunum
  - Technique similar to PEG placement
  - Use pediatric colonoscope
  - 20 French tube with mushroom bumper (avoid balloon)
  - Unusual tube locations common

Indications for Jejunal Feeding

- Prior gastric surgery
  - Gastrectomy
  - Esophagectomy/gastric pull-up
- Gastric dysmotility
  - Gastroparesis
  - Mechanical ventilation
- Gastric outlet obstruction
- Recurrent aspiration of gastric contents
- Acute severe pancreatitis
JET PEG vs. Direct PEJ

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Reintervention at 6 mos (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>JET PEG</td>
<td>56</td>
<td>13.5</td>
</tr>
<tr>
<td>D PEJ</td>
<td>49</td>
<td>55.9</td>
</tr>
</tbody>
</table>

p<0.001

JET PEG is less stable and requires more reintervention than DPEJ

Fan GIE 2002;56:890-94.
# Jejunal Feeding Tubes

<table>
<thead>
<tr>
<th></th>
<th>Success</th>
<th>Morbidity</th>
<th>Availability</th>
<th>Durability</th>
<th>Utility</th>
</tr>
</thead>
</table>
| Surg J         | Excellent | 17% minor 2% major | Good         | Moderate          | • At time of other surgery  
• If other methods fail |
| JET PEG        | Good    | >20%             | Good         | Poor              | If D PEJ not possible                       |
| D PEJ          | Good    | 6% minor 2% major | Poor but increasing | Excellent | Procedure of choice |

Courtesy of Mark Schattner
Special Situations

• Ascites (fluid in abdominal cavity)
  – Can impair formation of a tract between stomach and skin
    • Increased risk of gastric leak
  – Can lead to leakage from stoma site
  – Causes:
    • Liver disease (cirrhosis)
    • Malignancy
    • Other
Special Situations

• Ascites
  – Avoid PEG, PEJ in patients with liver disease and ascites
    • Rapid reaccumulation, higher volumes
  – Proceed with PEG, PEJ in patients with malignant ascites
    • Remove fluid first (paracentesis)
    • Place tube
    • Slower reaccumulation, lower volumes
Special Situations: Tube Dislodges

• Tube falls out
  < 4 weeks post procedure
    • Allow tract to close
    • Monitor closely
    • Repeat procedure
  > 4 weeks post procedure
    • See MD immediately
    • Reinsert foley tube or replacement tube
    • Obtain tube study to confirm position
Summary

- Feeding tubes can be placed surgically, endoscopically, and radiographically.
- Endoscopic options can be placed into the stomach (pre-pyloric) or small bowel (post pyloric).
- Of the small bowel tubes, the D PEJ is the choice option, but not all MDs perform procedure.
Summary

- Patients with malignant ascites are candidates for endoscopic tube placement
- If the catheter becomes dislodged, proper intervention will be depend on presence/absence of mature tract