Dysphagia due to transmural migration of polypropylene mesh into esophagus

A 25-year-old lady presented with history of dysphagia since 2 weeks. She was a known case of achalasia cardia who had developed iatrogenic esophageal perforation during rigid esophagoscopy two years earlier. At that time she was managed by nasogastric feeding, antibiotics and left thoracostomy drain. Open cardiomomyotomy by the abdominal route was done one month later. The leak persisted 2 months later, and a right anterolateral thoracotomy was done. The perforation was 3 cm in size in the upper thorax; the adjacent esophagus was inflamed and friable. A polypropylene mesh was wrapped around the perforation site; no esophageal leak was demonstrated three weeks after this procedure.

In the present episode, her dysphagia was gradually increasing and was mainly for solids. Barium study revealed a foreign body in the lower part of esophagus. Endoscopy revealed a folded polypropylene mesh lying at 30 cm. The surrounding mucosa was inflamed. There was no evidence of stricture. After endoscopic retrieval of the mesh the patient became asymptomatic.

Six years later the patient presented with dysphagia. Barium studies revealed stricture in the mid-esophagus with proximal dilatation. Endoscopy revealed an impassable stricture in the middle third at the previous perforation site; endoscopic dilatation was not attempted. The strictured and lower part of the esophagus was excised by thoraco-abdominal approach and colonic interposition was done; jejunostomy was made for feeding. Histology revealed chronic inflammatory changes and evidence of fibrosis. The patient is asymptomatic one year later.

Dysphagia due to transmural migration of foreign body is rare. Transmural migration of Angelchic prosthesis, suture material and Teflon pledges after Nissen fundoplication, spine-stabilizing titanium rod apparatus, and a bullet have been described.

Polypropylene does not appear to be a good reinforcing material in esophageal perforation. Wellvascularized pedicled flaps have been used for buttressing primary suture or covering perforation. Absorbable polyglactin mesh with fibrin glue has also been used. Tissue engineering may perhaps provide the solution for such problems.

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References


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Table: Relationship of duration of stay at University and frequency of IBS

<table>
<thead>
<tr>
<th>Year of study in University</th>
<th>n</th>
<th>Number (%) with IBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>248</td>
<td>39 (16)</td>
</tr>
<tr>
<td>Second</td>
<td>216</td>
<td>45 (21)</td>
</tr>
<tr>
<td>Third</td>
<td>57</td>
<td>9 (16)</td>
</tr>
<tr>
<td>Fourth</td>
<td>38</td>
<td>7 (16)</td>
</tr>
<tr>
<td>Fifth</td>
<td>29</td>
<td>7 (24)</td>
</tr>
<tr>
<td>Sixth</td>
<td>30</td>
<td>7 (23)</td>
</tr>
</tbody>
</table>

IBS as 5.8% and 3.5%, respectively. The prevalence of IBS in our cases was higher than in these studies, and nearer to figures from Western countries. This may be related to our population being more educated. It must be noted that the Rome II criteria have not been validated in Iran.

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References


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