The hidden cause of dysphagia – epiphrenic diverticulum and esophageal motility disorders

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A 65-year-old woman presented with slowly progressing dysphagia of two to three years' duration. The patient's dysphagia was intermittent and was associated with solid food during the initial phase, but progressed to difficulty with swallowing liquids. During the few months before presentation, she also experienced heartburn, nausea and vomiting. She denied significant weight loss or anorexia. Her medical history was notable for cholecystectomy 11 years previously, and she was taking ranitidine.

Physical examination and routine laboratory investigations including complete blood count, renal and liver function tests were within the normal range. She underwent gastroscopy followed by a barium

swallow, which demonstrated an epiphrenic diverticulum and a midesophageal diverticulum (Figure 1).

Following barium swallow, she underwent esophageal manometry (Figure 2). This demonstrated simultaneous contraction in the esophageal body of normal amplitude and duration (Figure 2). The resting lower esophageal sphincter pressure was elevated (49 mmHg), but the relaxation was complete (Figure 2), confirming an atypical variant achalasia. Gastroscopy also demonstrated epiphrenic diverticulum and a 'tight' gastroesophageal junction without a mucosal abnormality. The endoscope was passed through the gastroesophageal junction with a slight resistance.

DISCUSSION

Epiphrenic diverticulum is associated with concomitant esophageal motility disorders, most commonly achalasia (1,2). Increased intraluminal pressure due to the primary esophageal motility disorder is suspected to be the underlying cause for the development of epiphrenic diverticulum, resulting in herniation of the mucosa and submucosa through the muscular layer.

Generally, symptoms correlate with esophageal dysmotility rather than with the size of the diverticulum (3). Treatment includes diverticulectomy and myotomy, which can be performed laparoscopically (4). Due to her reluctance to consider surgical or endoscopic intervention, our patient was treated with the long-acting calcium channel blocker nifedipine. This achieved reasonable symptom control. However, medical therapy does not usually yield satisfactory results.

Figure 1) Barium swallow demonstrating an epiphrenic diverticulum and a midesophageal diverticulum

Figure 2) Esophageal manometry recording showing simultaneous contraction of the esophageal body of normal amplitude and raised lower esophageal sphincter pressure, but complete relaxation

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