Symptomatic Esophageal Hiatus Sliding Hernia

Clinical, Radiologic, and Endoscopic Study of 100 Cases

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SLIDING ESOPHAGEAL HIATUS HERNIA is one of the commonest pathologic conditions affecting the upper gastrointestinal tract. Although a considerable variation of opinion has existed regarding the symptomatic proclivities of this disorder, the view that the majority of hiatus hernias are symptomless is receiving less and less support.

It has become increasingly clear that esophageal hiatus sliding hernia is not necessarily an innocuous clinical condition. The development of this abnormality results in an anatomic alteration wherein a varying segment of the proximal portion of the stomach rises through the esophageal hiatus of the diaphragm into the posterior mediastinum, and concomitantly the esophagus frequently becomes shortened by longitudinal contraction. This structural change often results in a physiologic failure of the sphincteric mechanism at the cardia, permitting a free reflux of gastric contents into the esophagus, and may lead to the development of annoying symptoms and serious complications. These latter affect the esophagus and the herniated segment of the stomach. If the condition remains uncomplicated by inflammatory changes, the herniation may continuously vary in degree and may intermittently recur and be spontaneously reduced. If, however, inflammation develops and spreads by contiguity through the esophageal wall to involve the paraesophageal tissues (especially if a penetrating esophageal ulcer should form), esophageal stricture ensues and firm adhesions develop which fix the esophagus in a shortened state and render the hernia irreducible.

The study reported in this article was made in an effort to correlate the clinical symptoms and findings with the radiologic and endoscopic observations.

METHODS AND MATERIAL

We have selected in sequence from our endoscopic case material, 100 patients with symptomatic sliding esophageal hiatus hernia (proved both by X-ray and by endoscopy) in whom the endoscopic studies performed per-
mitted an adequate view of both the esophagus and the herniated gastric pouch (except in patients with stricture of the esophagus secondary to peptic esophagitis). These patients were all males and ranged in age from 20 to 79 years. Esophagoscopy was performed in 81 patients and gastroscopy in 35 (16 were combined procedures). In a number of patients these examinations were done on more than one occasion, as the indication dictated. The instruments used were the Eder-Hufford or Schindler esophagoscopes and the standard Schindler gastroscope.

**ESOPHAGOSCOPY**

The pertinent esophagoscopic findings in patients with esophageal hiatus sliding hernia are:

1. The esophagogastric junction is encountered proximal to the diaphragmatic hiatus and, therefore, at a higher level than normal (less than 40 cm. from the front teeth). In our group of patients the level at which the esophagogastric junction was noted varied from 27 to 40 cm., with the vast majority (58, or 85 per cent) lying between 34 and 38 cm. Since, in advancing the instrument beyond the esophagogastric junction, the hernia may be partially or completely reduced, the level of the junction should be ascertained both during the introduction and the withdrawal of the esophagoscope. When estimated in this fashion, the level of the esophagogastric junction may be found to vary as much as 1-3 cm. in position. Because of the longitudinal contraction of the esophagus which frequently accompanies the herniation, varying degrees of transverse “infolding” or redundancy of the esophageal mucosa may be encountered. At the esophagogastric junction, an abrupt change in the color and structure of the mucosa is commonly observed. Here the yellowish-pink, smooth mucosa of the esophagus terminates, and the orange-red, thick gastric rugal folds begin, giving a scalloped appearance to the junction.

2. The opening into the gastric pouch is patulous and is entered directly in a straight line without need to resort to hyperextension of the head of the patient and flexing it to his right, as is the case in patients not having an esophageal hiatus sliding hernia.

3. Free reflux of gastric secretions into the esophagus, while the tip of the instrument is above the diaphragmatic hiatus, is a rather frequent occurrence necessitating suctioning. In an unknown case, this finding should alert one to look for the presence of an esophageal hiatus hernia. In a known case, prior drainage of the stomach with a Ewald tube will usually prevent this annoying reflux.

4. Not infrequently, when the pouch is entered, the gastric mucosa will occlude the lumen of the instrument, especially if it is edematous. Diag-