Long-Term Follow-up of Patients with Achalasia Treated by Myotomy and Partial Fundoplication

C. A. Hiebert

Department of Surgery, Maine Medical Center Portland, Maine, USA

Introduction

The purpose of this paper is to examine the long-term results of patients with achalasia who have been treated by Heller myotomy combined with a single-layer noncircumferential anterior fundoplication.

All patients were followed by the author and by questionnaire in order to grade each of the several components of esophageal function including: ease of swallowing, reflux control, ability to vent gastric gas, and capacity to vomit. Ages at operation ranged from 17 to 83 years.

Treatment

Patients were operated on via a left thoracotomy through the seventh or eighth interspace. To minimize postoperative intercostal neuralgia, rib separation to no more than a 5-cm interval between the retractor blade was the rule. Optimal exposure is gained through use of a double-lumen endotracheal tube to allow collapse of the left lung.

The lower esophagus is mobilized, the attachments of the cardia to the diaphragm are divided, and the anterior fat pad at the gastroesophageal junction is excised. Vagus nerves are not disturbed. Two posterior transcrural 2-0 nonabsorbable sutures are placed, but left unknotted for the moment. The use of two rather than three posterior transcrural sutures is more likely to leave an appropriately loose hiatus which must never be so snug as when doing a proper antireflux operation in a patient with normal esophageal peristalsis. When in doubt, it is best to err on the side of slackness.

The longitudinal myotomy is made on the left anterolateral aspect of the lower esophagus and is extended through the encircling musculature (Fig. 1). Two power optical loupes are useful in ascertaining and maintaining the proper incision and plane of separation. This incision is extended over the stomach for 1.5 cm and up onto the esophagus to 1 cm beyond the point of muscular thickening. Following this, sponge-tipped instruments spread the edges of the muscle until a gap of 2 cm is obtained. A pair of mattressed 3-0 nonabsorbable sutures are now placed on the sides of the myotomy, care being taken not to penetrate the mucosa (Fig. 2). Each of these suture pairs is then passed from below upwards through the diaphragm as one does in the second imbricating row of the Belsey...
Fig. 1. The cephalad myotomy margin is just beyond the point of thickening of the esophageal musculature

Fig. 2. The transcrural repair and the two mattressed imbricating sutures are shown

Fig. 3. The sutures are passed through the diaphragm from below upwards. A spoon snugged against the diaphragm deflects abdominal contents

Fig. 4. The completed operation