ABC of ENT

HAROLD LUDMAN

DIFFICULTY IN SWALLOWING

The commonest causes of *acute* dysphagia are inflammatory disorders and foreign bodies, which are discussed in other articles. When dysphagia is *chronic* the doctor must first identify the stage of swallowing that is affected. Difficulty with the first two stages of swallowing—passing the bolus to the back of the throat and initiating the swallowing reflex—is caused by neuromuscular disorders and is relatively rare. Dysphagia after the initiation of the involuntary swallowing reflex is much more common and is usually caused by lesions within the laryngopharynx and oesophagus, though, rarely, the oesophageal lumen may be compressed externally or deranged by diseases of its wall as in scleroderma. The neuromuscular disorders that disrupt the first two stages of swallowing include motor neurone disease, multiple sclerosis, paralysis of the lower bulbar nerves after posterior cranial fossa operations or infarction of the medulla, and infection of the bulbar neurones in acute anterior poliomyelitis.

Is the cause organic?

If a patient with dysphagia has lost weight, has pain referred to the ear on swallowing, has undergone a voice change, or suffers regurgitation of food into his mouth an organic cause for the dysphagia must be sought. Often, however, he or she will complain of a sensation of a lump in the throat for which no organic cause can be found. This disorder—sometimes called “globus hystericus”—most often affects women and may be due to spasm of the cricopharyngeus muscle. It should be suspected whenever the sensation of a lump lying centrally in the throat at the level of the larynx persists for several months without weight loss, obstruction to swallowing, or abnormal clinical findings.

If the history indicates an organic cause for dysphagia during the third or reflex stage of swallowing the important causes to consider are: postcricoid carcinoma, other malignant tumours of the laryngopharynx, hypopharyngeal diverticula, benign strictures of the oesophagus, achalasia of the cardia, and carcinoma of the oesophagus.

In many of these cases, including those of benign stricture and carcinoma, the patient might often be referred to a general rather than an ENT surgeon.

Postcricoid carcinoma

Postcricoid carcinoma invariably occurs in middle-aged women who suffer from chronic iron deficiency anaemia. The dysphagia, together with the other features of iron deficiency anaemia—koilonychia, glossitis, and angular stomatitis—constitute the Paterson-Brown-Kelly syndrome. The development of malignant neoplasia is preceded for some years by the formation of a fibrous postcricoid web, immediately under atrophic postcricoid mucosa. In the early stages, before neoplasia develops, the patient must be treated by restoring serum iron concentrations to normal and maintaining them. Postcricoid webs may be dilated through an endoscope.

Other malignant tumours of the laryngopharynx

Other tumours, particularly those of the pyriform fossa, are far commoner in men than in women and do not cause dysphagia until they become large because the food channel is much wider at the level of the pyriform fossa. An elderly man with a tumour of the laryngopharynx would probably have progressive hoarseness, pain referred to the ear, and cervical lymphadenopathy.

As with postcricoid carcinomas, curative treatment includes radiotherapy sometimes combined with cytotoxic drugs. If the larynx and surrounding pharynx has to be removed there are several reconstructive techniques available to establish continuity between the oropharynx and oesophagus. In many cases the chance of cure is low and treatment can be palliative only.

Pharyngeal pouches

Pharyngeal pouches—or hypopharyngeal diverticula—usually develop in middle-aged to elderly men. The pharyngeal mucosa between the upper and lower parts of the inferior constrictor muscle (thyropharyngeus and cricopharyngeus) becomes herniated through the dehiscence of Killian—in the midline posteriorly. As the pharyngeal pouch enlarges, food is regurgitated into the mouth, and this may be provoked by pressing on the skin of the neck over the pouch. Intermittent overspill of the content of the pouch into the larynx causes coughing and, sometimes, recurrent aspiration pneumonia and pneumonitis. If the pouch grows very large it becomes the preferential channel for the passage of food, and when it is full its pressure on the oesophagus completely obstructs swallowing. Relief is achieved only by emptying the pouch. Small pouches may need no treatment or only simple dilatation of the postcricoid region with an endoscope, but larger pouches may have to be removed by external operation. A valuable alternative, particularly in a frail patient, is surgical endoscopic division of the wall between the pouch and the oesophagus by diathermy.

Benign strictures of the oesophagus and carcinoma of the oesophagus

Benign strictures may develop from chronic oesophagitis and are often associated with longstanding gastric reflux. They can be treated by endoscopic dilatation combined with medical measures to prevent gastric reflux and gastric acid secretion.

Carcinoma of the oesophagus presents, usually in elderly men, with a story of progressive dysphagia and loss of weight. The typical radiographic barium swallow appearance of an irregular stricture should suggest the diagnosis, which has to be confirmed histologically on material removed endoscopically. Histological examination is also needed for the much rarer benign tumours of the oesophagus, such as leiomyoma.

Achalasia of the cardia

Achalasia is a neuromuscular disorder preventing free passage from the oesophagus to the stomach, with gross dilatation of the oesophagus above. The clinical picture is similar to that of benign stricture or carcinoma of the oesophagus, but there are often periods of remission. The diagnosis may be suggested by the radiographic appearance of a barium swallow but must be confirmed by endoscopy. Achalasia of the cardia is treated either by stretching the lower oesophageal sphincter with a hydrostatic bag or by Heller's operation (cardiomyotomy), in which the oesophageal musculature at the cardio-oesophageal junction is incised down to the mucosa.

Assessment and examination

Correct diagnosis demands a careful clinical history. Nevertheless, this may be misleading about the level of the lesion since low oesophageal obstruction often produces a sense of blockage much higher. Examination of the pharynx and palate may show impaired mobility. Pooling of food or saliva in the pyriform fossa, seen with a laryngeal mirror, is always a sign of physical obstruction.

A lateral radiograph of the neck is useful since it may show thickening of the soft tissues between the larynx and vertebral column in postcricoid carcinoma. Barium swallow examination is usually essential, and observation by the radiologist during the swallow will provide far more valuable information than the still photograph.

Further investigation of any abnormality requires endoscopy. This is now often performed with fiberoptic endoscopes, which offer less risk of damage to the oesophageal mucosa than do the traditional large-bore oesophagoscopes.

In assessing a patient with dysphagia it is important to decide how far to investigate. If there is any doubt that an organic lesion might be overlooked then barium swallow and endoscopy must be carried out.

Palliative relief of dysphagia

Cricopharyngeal myotomy—external division of the cricopharyngeus muscles down to the hypopharyngeal mucosa—is helpful in neuromuscular disorders that affect the oropharynx and laryngopharynx; it is particularly useful in managing severe dysphagia in motor neurone disease. It is effective particularly when the blockage is at the level of the cricopharyngeus rather than when the main difficulty is in passing the bolus from the mouth to the pharynx.

The dysphagia of inoperable carcinoma of the oesophagus may often be helped by passing a metal or plastic tube through an endoscope.

Nutrition in severe dysphagia may require passage of a nasogastric tube or a gastrostomy. Very fine nasogastric tubes, causing minimal discomfort to the patient, allow a high-energy diet to be administered by continuous or intermittent infusion. Gastrostomy is occasionally preferable in a patient who can leave hospital and manage his own food intake, but it does not ease the distressing inability to swallow saliva that is suffered by many patients. Salivary secretion can sometimes be reduced by giving anticholinergic drugs (though these cause side effects) or by denervation of the salivary glands (tympanic neurectomy and chorda tympani section).

The radiographs were reproduced by kind permission of Dr J M Dawson.

Mr Harold Ludman, MA, FRCS, is consultant otolaryngologist, King's College Hospital, and neuro-otological surgeon, the National Hospital for Nervous Diseases, London.