# BRITISH SURGICAL PRACTICE

## VOLUME 7

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# PHARYNGEAL DIVERTICULA

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## 1. DEFINITION

265.] The diverticula here described are pulsion diverticula formed in the posterior wall of the pharynx just above its junction with the oesophagus. The rare traction diverticula found lower down in the oesophagus and the pulsion diverticula in the supradiaphragmatic portion of the oesophagus are not considered. The existence of an anterior diverticulum described by the late Sir Arthur Hurst (1925) as situated 2 inches higher up on the anterior wall has been disproved. The appearance he described was due to barium lodging in the vallecula between the tongue and the epiglottis (Fig. 1(a)).

(*a*) (*b*)

Fig. 1.—(a) Lateral view of pharyngeal pouch, also showing barium lodged in the vallecula. (b) Antero-posterior view of the same pouch with both valleculae filled with barium.

The pouch we are discussing has been described, inaccurately, as oesophageal and, less

inaccurately, as pharyngo-oesophageal. Since the latter term is unduly long, and the term pharyngeal pouch is shorter and not open to misconstruction, it is preferred.

## 2. SURGICAL ANATOMY AND AETIOLOGY

On the posterior wall of the pharynx near its lower end there is a potential weak spot between the oblique fibres (thyropharyngeus) and the transverse fibres (cricopharyngeus) of the inferior constrictor muscle (Fig. 2). It is only in the event of some abnormal increase in intrapharyngeal tension that the

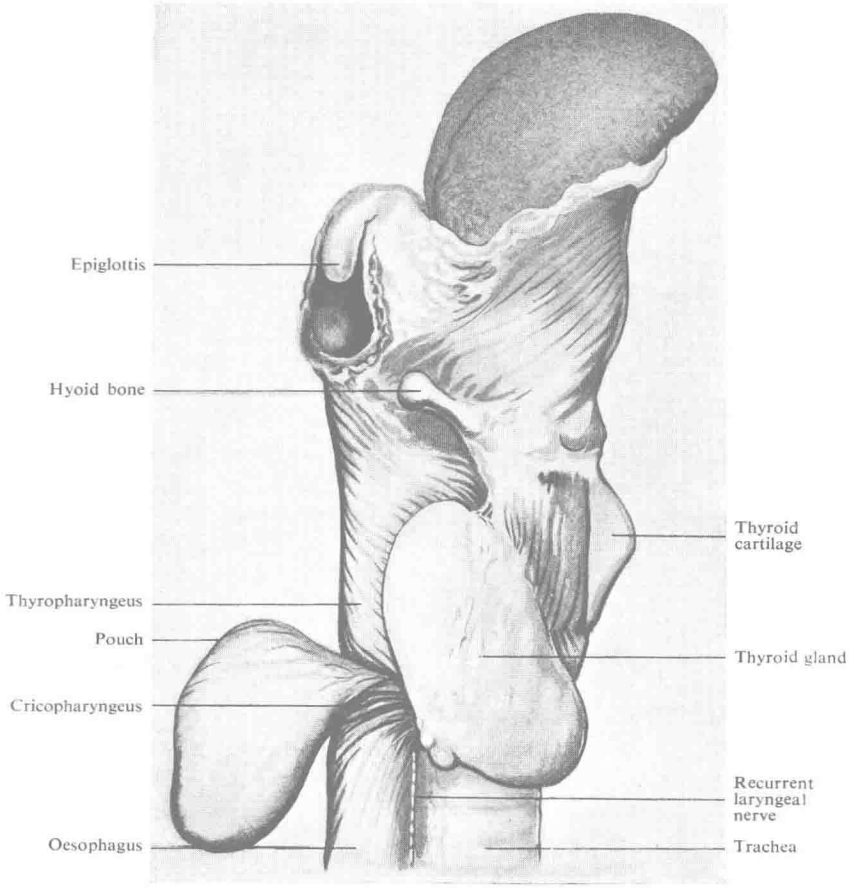


FIG. 2.—Lateral view of a dissection of a pharyngeal pouch. (*After St. Clair Thomson and Negus.*)

*Obstruction of the oesophagus*

weak spot develops into an actual herniation. The causes of this intrapharyngeal tension, however, are not easy to explain. When a gross cause of obstruction to the lower part of the oesophagus is found, such as a fibrous stricture or pressure due to an intrathoracic goitre, the explanation is obvious. In the great majority of cases, however, no such factor is present, and we are forced to assume a spasm of the cricopharyngeus muscle as the cause of the increased tension during deglutition.

Once it has started the pouch tends to increase by slow and imperceptible degrees with each act of deglutition. After the pouch has attained a certain size, it becomes, when filled with food, a source of pressure on the oesophageal lumen from behind and laterally, and gradually a vicious circle is established. The pouch, filled with food, makes deglutition more difficult, and hence food passes into the pouch more easily than into the oesophagus. At this stage serious interference with nutrition may result.

*Loss of nutrition*

The pouch is a "false" one, in that its walls are not formed by all the coats of the pharynx, but only by its mucosa and submucosa herniated through the gap in the muscular coat posteriorly.

## 3. CLINICAL PICTURE

The condition is at least twice as common in men as in women, and occurs as a rule in middle age. Before the onset of real dysphagia there is often a sensation of something sticking in the throat which may excite an irritating cough that leads to some regurgitation of food. As the pouch enlarges slowly, the patient begins to notice both dysphagia and an obtrusive gurgling noise on swallowing. This latter is due to a mixture of fluid and air in the sac and often causes great distress to the patient and his friends, so that he dislikes to eat in public on account of the unpleasant noise. There are, at times, attacks of choking and coughing, leading to the ejection of solid particles of food that may have been taken many hours before. In some cases this is peculiarly troublesome when the patient lies down.

*Early symptoms*

These symptoms may persist and cause considerable annoyance to the patient for many years without giving rise to dysphagia serious enough to interfere with nutrition. Sooner or later, however, oesophageal obstruction arises and progressive emaciation may result. In the larger pouches, and particularly in emaciated patients, there may be a visible swelling in the neck, usually on the left side, when the pouch is full of food. In such cases compression of the swelling causes immediate regurgitation of food into the mouth.

*Dysphagia*

## 4. COMPLICATIONS

Inflammatory changes in and around the sac are rare but may occur in very large pouches. In one case the pouch had been present for over 10 years and held 1½ pints of fluid, and the fundus was so adherent to the arch of the aorta that it tore during removal.

*Adherence of fundus*

A more serious complication is the development of a squamous-cell carcinoma in the sac. I have reported two cases in which this had occurred. It is not easy to make a statistical estimate of the frequency of this complication, but enough cases have been reported to provide a strong argument against postponing surgical excision indefinitely.

## 5. SPECIAL AIDS TO DIAGNOSIS

Radiological examination after swallowing barium is as essential to an accurate diagnosis in this condition as it is in dysphagia from other causes. Skiagrams should be taken in the antero-posterior and in the lateral planes. The clearly defined rounded sac is quite characteristic (Fig. 1(b)).

*Barium swallow*