RIGHT-SIDED PHARYNGEAL DIVERTICULUM.

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THE following case is interesting because of the age of the patient, the usual age incidence in recorded cases being over 40, and because the diverticulum was on the right side.

A young man was referred to me by Dr. J. J. Kearney of Cork as a case of oesophageal diverticulum needing surgical treatment. He complained of dysphagia which had its origin in a "cold and sore throat" two years previously. The dysphagia was worse when swallowing doughy substances, and was accompanied by the sensation that "one bite pressed on another." There was a gurgling sound whilst partaking of food and at frequent intervals between whiles, even during sleep. There was a feeling of distension after food, oral flatulence, and constipation. Though his appetite continued good, the patient had latterly suffered from marked and increasing inanition and some form of relief had become imperative.

Though much emaciated, the patient's general health was good and his vital organs were found to be healthy. The nose, mouth, and oro-pharynx were normal. Inspection revealed a questionable dilatation of the right side of the neck, below the level of the cricoid cartilage, but the existence of a diverticulum could be definitely determined by palpation owing to the gurgle which could be both heard and felt and to the regurgitation that ensued.

X-ray Examination.

Dr. H. J. Cotter reported as follows: "There is a small pouch in the right wall of the oesophagus at a level corresponding with the crest of the first rib. Small mouthfuls of semi-liquid food pass easily, but a larger mouthful causes the pouch to fill. When full it is about the size of a marble. Continued efforts at swallowing cause the food to regurgitate and a little passes down, the rest returning to the pouch. In time it is gradually emptied. Diagnosis: Constriction of the oesophagus at the site indicated with small diverticulum in the right wall."

A bougie was found to be held up eight inches from the teeth. On using the oesophagoscope the beak of the tube passed readily into the pouch, which appeared to me to be medial in position and full of farinaceous food. Upon removing the latter the lining mucosa presented a healthy appearance and was evidently a diverticulum of the hypopharyngeal mucous membrane. The communication between the pouch and the oesophageal hiatus was with difficulty discerned and lay apparently behind the left half of the cricoid lamina. It was only possible to make the beak of the tube override the lip dividing the diverticulum from the oesophagus by employing a tube of unusually small calibre and using considerable pressure from behind forwards. Inspection showed the remainder of the oesophagus to be quite normal.

Before withdrawing the oesophagoscope a Hill's feeding tube was passed into the oesophagus through the instrument, its upper end being brought forwards through the nose and secured to the cheek. This tube was well tolerated and allowed of the patient's being liberally fed on the days preceding operation.

Operation.

Operation was undertaken under general anaesthesia administered by laryngeal intubation. A bougie was passed into the sac for purposes of orientation; the presence of this tube as well as the Hill's feeding tube in no way interfered with the safe and adequate administration of the anaesthetic used. The diverticulum was exposed and isolated without difficulty by an incision running on the right side from the great cornu of the hyoid bone to the sterno-clavicular articulation. When rendered tense by the bougie the diverticulum could be aptly compared in size and shape to the ring finger as far as the first interphalangeal articulation. The inferior thyroid artery having been ligatured and divided, the recurrent laryngeal nerve was seen and isolated. The base of the sac was now clamped in the vertical direction and the sac removed, the opening into the pharynx being subsequently closed by three superimposed layers of chromic gut sutures. The wound was packed with gauze round a rubber drainage tube and the upper and lower angles of the wound were apposed by a few deep and superficial interrupted sutures.

After-History.

The patient was kept in the Fowler position. Though restless and troubled by insomnia and cough, he did not, in spite of his debilitated condition, suffer an undue amount of shock. On the second day the temperature rose to 101.6°F., and there was evidence of surgical emphysema on the right side of the thorax. The temperature subsided on changing the dressings, but the emphysema was slower in disappearing. I attribute this latter symptom to the persistent cough and excessive expectoration of frothy mucus which was the patient's main cause of discomfort during the week succeeding operation. These symptoms were apparently little influenced by a liberal exhibition of atropine and morphine, and I have little doubt that, mainly from this cause, the pharyngeal wound leaked as early as the day after operation. Owing, however, to the clean state of the pharynx and mouth, and to our ability to feed the patient early and often through the retained feeding tube, the pharyngeal wound remained clean and at rest and rapidly healed, as also did the main wound in the neck, without apparent signs of infection. The patient suffered from slight and transient hoarseness, doubtless due to the unavoidable trauma of his recurrent laryngeal nerve. The Hill's tube was not withdrawn until the

ninth day after operation, though I am of opinion that it could have been removed with safety some days earlier. It was then found that he could swallow without difficulty, and he was able to leave hospital a few days subsequently.

The etiology of the condition is obscure, but may probably be ascribed to inco-ordinate action between the propulsive and the sphincteric elements of the pharyngeal muscles in the presence of a weakness of the pharyngeal wall in the neighbourhood of the pharyngeal dimple, which, according to Wilkie and Hartley, is the commonest cause of this affection.¹ The patient was, however, not a "bolter."

I am of opinion that the preliminary insertion and retention of a Hill's tube, brought forward through the nose, is of decided advantage, especially in the case of a small pouch where the one-stage operation is contemplated. It permits of a proper amount of nutriment being administered before and immediately subsequent to operation, and, what is perhaps of greater importance, of its being administered without the risk of contaminating the cervical fascial planes through what must, at best, be a leaky oesophageal wound. It is, on the whole, well tolerated. It has the further advantage that, the sac having been emptied on its insertion, the danger of suffocative regurgitation of food residue during the operation can be definitely excluded. That this danger is a very real one is evinced by the fact that in the Mayo Clinic local anaesthesia is now employed, for the purpose of excluding the possibility of its occurrence, in practically all cases operated on for this condition.² The double intubation method I employed in this case rendered the one-stage operation under general anaesthesia surprisingly easy and safe.

REFERENCES.

- ¹ D. P. D. Wilkie and J. N. J. Hartley: *British Journal of Surgery*, November, 1922.
- ² Charles H. Mayo: *Annals of Surgery*, March, 1923.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

SEVERE ILLNESS FROM GNAT BITE.

STINGS and bites from winged pests resulting in serious illness are occasionally reported in the daily press, and not infrequently the report embodies a coroner's verdict. Death from wasp sting may be occasioned by swelling of the tissues and interference with respiration, but in some cases the cause may lie in the toxin carried by a winged pest from its previous resting place. The history of the following case suggests that apparently simple lesions, such as bites and stings, should be immediately treated with a suitable antiseptic. A lady spending a holiday in a forest district in Scotland last summer was stung behind the ear while she was standing. In a day or two the swelling which resulted required medical attention. Before this swelling from the bite had disappeared she became prostrated, feverish, and had an eruption of herpes facialis on the bitten side. While recovering from this she developed facial paralysis, which progressed into auditory nerve deafness. The deafness was of high grade and accompanied by a modified Ménière's syndrome. Dr. Lawrence in the *BRITISH MEDICAL JOURNAL* (November 24th, p. 982) reports a somewhat similar condition.

To me the sequence of events seems to be as follows:

(1) a peripheral neuritis from the toxin injected by the bite of a flesh-eating gnat; (2) extension of this neuritis to the motor filaments; (3) its progression to the internal auditory meatus, where, by way of the nerve of Wrisberg, the eighth nerve becomes involved. Congestion of the bony labyrinth follows, and a modified Ménière's syndrome results. Signs of vaso-dilator stimulation of the cervical sympathetic nerve were observed, and indicate the extension of the neuritis to the petrosal nerve.

Deafness arising from herpes is said by authorities to be permanent, and certainly this lady has had much treatment from distinguished practitioners, including consultants and medical electricians, without the slightest effect on the hearing. In my opinion this case with its sequence of four distinct diseases—a trifling trauma (the bite), then shingles, then facial paralysis, and finally deafness—might have been prevented by the immediate application of tincture of