merely to the nasal cavity, but to the sphenoid as well. At the stage where the nasal mucous membrane is first detached a strip of gauze is inserted between the mucosa and the bone to control the bleeding. The further extension of operation is decided by the condition found.

Dundas Grant.

LARYNX.

Poli, C. (Genoa).—*Avellis' Syndrome.* "Archivii Ital. di Laringologia," Naples, April, 1906; and "Archivii Ital. di. Otologia," Florence, April, 1906.

This valuable article is a *résumé* of the report made to the Ninth Congress of the Italian Laryngological Society held at Rome in 1905.

Dr. Poli points out that the association of a unilateral paralysis of the laryngeal muscles with that of other muscles of the same side had been noted from the earliest laryngoscopic period. It was, however, in 1891 that Avellis in Schmidt's Clinic called attention to the fact that of 150 cases of unilateral paralysis in 10 there was an associated homolateral paralysis of the soft palate. From that time until now the cases, either of the simple form or associated with paralysis of other muscles, have so multiplied that in the author's opinion the time has come for analysing the material available. Seventy-one cases have been collected from the literature and divided into four groups: (1) the genuine, (2) the symptomatic, (3) the atypical, and (4) the crossed form.

(1) *The genuine form* is divided into three classes: (*a*) *pharyngo-laryngeal paralysis* (Avellis' syndrome); 18 cases, 12 men and 6 women, have been recorded by Mann, Molinie, Trautmann and Longhi. The left side was affected in 11 cases and a peripheral lesion was positively diagnosed in all except 2 cases. The author discusses at considerable length the varying aspects of the symptoms.

(*b*) *Pharyngo-laryngeal hemiplegia with that of the shoulder of the same side* (*trapezius and sterno-cleido-mastoid*).—Nine cases recorded, 5 men and 4 women, by Tapia, Poli, Foubin, Lermoyez and Laborde, Tilley, Desvernine, B. Fraenkel and Chaveau. The cause was positively ascertained by autopsy in only two. The site of the lesion is regarded, however, as peripheral—that is, one affecting in its course the extreme branch (trapezius and sterno-mastoid) of the spinal accessory and its internal branch (velum palati and vocal cord). On this point Dr. Poli remarks: "This last fact throws much light on the etiology of the preceding group of cases, confirming, from the clinical point of view, the opinion that to the bulbar portion of the spinal accessory belongs the innervation of the larynx by way of the recurrent and that of the velum palati by way of the pharyngeal branch of the vagus."

(*c*) *Glosso-pharyngo-laryngeal hemiplegia involving eventually the muscles of the shoulder* (*Hughlings-Jackson's form*).—Sixteen cases recorded, 14 men and 2 women, by Schech, Bernhardt, M. Schmidt, Wiersma, Israel-Remack, Trautmann, Avellis, Wiener, Hughlings-Jackson, Stephen Mackenzie, Pel, Jalb. Attention is called to a point connected with four of these cases and two of the preceding group: "that while the symptoms indicated a lesion of the ninth, tenth, and eleventh nerves at their exit from the base of the skull, the sensibility of the pharyngo-laryngeal mucosa as well as the reflexes of that region remained normal. This fact is in evident contrast with the classical scheme of the peripheral

innervation of the larynx actually accepted, which accords the sensory function to the superior laryngeal." In all these cases with one exception the facial nerve remained intact. The deviation of the angle of the mouth in the disease should perhaps be referred (Gowers) to the lesion of the hypoglossal.

(2) *Associated or symptomatic forms.*—Twenty-eight cases, 20 men and 8 women, were recorded by L. Harmer, Oltuszewski, Schlodtmann, Turner, Avellis, de Havilland-Hall, Strazza, Eisenlohr, Jobson Horne, Poli, Hoffmann, Tilley, Semon, Moebius, Hughlings Jackson, R. Lake, and Remack.

The distinctive feature of this group is the central (bulbar) site of the lesion. The question whether by means of any of these cases one might be able to refer the pharyngo-laryngeal hemiplegia to a cortical origin would seem to be implicitly negatived by the fact, now ascertained, that the literature contains no incontestible case of cortical laryngeal paralysis. On the other hand, Dr. Poli suggests that the question might be raised whether in any of these cases—*e. g.* of tabes or syphilis—the lesion was truly bulbar in view of the fact that in some cases of posticus paralysis of tabetic origin the autopsy demonstrated rather a peripheral lesion of the nerves than a nuclear. It would appear incontestible, however, that the lesion was bulbar in some of the cases, and especially in those due to syringo-myelia. It is worthy of note that in none of them did the lesion extend to the spinal root of the accessory (sterno-mastoid and trapezius).

(3) *Atypical forms.*—(*a*) Glosso-pharyngeal, 3 cases, Hirt, Leudet, and Schiffers; (*b*) glosso-palatine, 2 cases, Lermoyez, Ascoli; (*c*) glosso-laryngeal and shoulder muscles, 1 case, Tapia, due to patient being gored a little below the angle of the lower jaw; (*d*) laryngeal and muscles of shoulder, several cases by many authors due to lesion of spinal accessory in both branches and its peripheral tract.

(4) *Crossed forms.*—(1) A case of *right* glosso-pharyngeal paralysis and homolateral muscles of shoulder and *left* vocal cord (Hughlings Jackson). Notwithstanding Morell Mackenzie's opinion, that this was of bulbar origin, the author considers that from his study of the previous cases it may be ascribed to a peripheral cause. (2) Case of paralysis of *left* cord and *right* side of velum palati (M. Mackenzie). Autopsy disclosed a superficial inflammation of the medulla. (3) Case of paralysis of the *left* side of palate and *right* vocal cord (Birkett). Cause unknown. There was a painful swelling at the angle of one jaw.

Dr. Pole draws the following conclusions: The classification is not absolute, as many of the cases, better and longer observed, might perhaps be included with other forms. Although the data from autopsies are available in only nine cases, it is possible to state (1) that in those which present themselves in the *genuine form* the site of the lesion is peripheral and preferably along the extra-cranial course of the nerve-fibres, but the nearer the point of exit from the cranium the more complex are the symptoms. (2) In the cases in which the lesions are varied and complex the site of the lesion is often—but not always—central or more accurately bulbar. *James Donelan,*

ŒSOPHAGUS.

Zahn (Halle).—*A second Case of Distortion of the Œsophagus produced by Vertebral Ecchondrosis.* "Münch. med. Woch.," May 8, 1906.

The patient had been ordered feeding by the stomach-tube on account