

Abstracts.

PHARYNX.

Anderson, H. B. (Toronto).—Appendicitis as a Sequela of Tonsillitis.
 "Amer. Journ. Med. Sci.," October, 1915.

The occurrence of appendicitis as a sequela of tonsillitis has, in the author's opinion, received less notice from clinicians in America and Great Britain than its practical importance warrants. Since Kelynack in 1893 first drew attention to the relationship between the two diseases, many cases have been reported which tend to show that appendicitis is often of hæmatogenous origin, and that when such is the case the primary source of infection is not infrequently the tonsil. One writer, Kletz, even goes so far as to say that in his opinion almost every case of appendicitis is in causal connection with angina through hæmatogenous infection.

The author reports three cases in which this connection appeared to be clearly established. He draws attention to the tendency shown by such cases of appendicitis to run an atypical course and, "after smouldering, suddenly to develop fulminating symptoms." The diagnosis is, moreover, rendered difficult in some of these cases of hæmatogenous origin by the fact that local tenderness and rigidity in the right iliac region of the abdomen may be entirely absent, a condition rarely observed in acute appendicitis.

Thomas Guthrie.

NOSE AND NASO-PHARYNX.

Bryant, W. Sohler.—Transitional Epithelium in the Rhino-pharynx.
 "The Laryngoscope," 1915, p. 346.

Bryant has investigated the position of the boundary line between squamous and ciliated epithelium in the naso-pharynx. In this boundary line the epithelium is cuboid, with imperfect cilia or none at all. In all specimens examined (rabbits, guinea-pigs, cats, macacus and cebus monkeys and human beings at various ages) the squamous epithelium of the oro-pharynx extends as far forward and upward as the fossæ of Rosenmüller, and the boundary zone occupies the region of the Eustachian orifices. The intermediate zone lies in a wavy ring round the rhino-pharynx, and marks the line between the free air portion and the repeatedly washed portion of the rhino-pharynx; the latter is, of course, exposed to friction and pressure as well as to the materials of digestion. It has been observed clinically and experimentally that when ciliated epithelium has been destroyed over an area, it does not become wholly replaced—its place being taken by squamous epithelium. Bryant warns us of the damage done by the application of strong reagents to the ciliated region of the rhino-pharynx.

J. S. Fraser.

ŒSOPHAGUS.

Goffe, E. G. L.—Perforation of the Arch of the Aorta by a Safety-pin Impacted in the Œsophagus. "Brit. Journ. of Children's Diseases," No. 134, vol. xii, February, 1915.

The case history of an infant aged ten months, who, having never previously been ill, was admitted to a fever hospital certified as suffering from scarlet fever. The next day the child vomited a large quantity of blood after a feed of milk, and died. At the *post-mortem* it was found

that the child's death was due to the presence in the œsophagus of a brass safety-pin $1\frac{1}{4}$ in. long, the point of which was found to have perforated the gullet-wall in a downward direction $1\frac{1}{2}$ in. from its upper extremity, and after having traversed a space 1 in. in extent, to have perforated by ulceration the posterior wall of the aorta $\frac{1}{2}$ in. below the origin of the left subclavian artery. Bleeding took place into the œsophagus. From investigations made it appeared probable that the pin was swallowed about three weeks before death. *J. B. Horgan.*

E.A.R.

Samuel J. Kopetzky.—**Atypical Sinus Thrombosis.** "The Laryngoscope," 1915, p. 165.

Kopetzky classifies cases of sinus thrombosis into (A) Typical and (B) Atypical.

(A) In dealing with the typical cases Kopetzky divides cases of mastoiditis into three groups: (1) The coalescent type of mastoiditis; (2) the hæmorrhagic type; and (3) the component lesions of chronic mastoiditis, including cholesteatoma cases and those with an acute exacerbation supervening on a chronic suppuration.

(1) In the first group the disease generally reaches the sinus wall by contact, and granulations spring up. At a later stage the sinus wall may be eroded or opened, so that its interior is in communication with the mastoid abscess. In this group, then, pachymeningitis externa first occurs; next, thrombosis takes place in the interior of the sinus, and the thrombus becomes infected secondarily.

(2) In the hæmorrhagic type the bony structure of the mastoid process is not generally broken down. There may be destruction of bone around the antrum, but most of the mastoid cells maintain their bony walls intact. In these intercellular bony structures there are small veins which become phlebotic or thrombotic. Through these small veins the sigmoid sinus becomes infected. This hæmorrhagic type is well seen in true influenzal infections. In this type the sinus wall does not generally throw out defensive granulations as the sinus infection develops from within the blood-vessels. As one would expect, in this group the sinus wall has at first a normal appearance, and only late in the course of the disease does it appear thickened.

(3) In the chronic cases the sinus is reached by extension of the bone lesion or through contact with purulent tracts ramifying through the diseased bone. In this group the sinus wall rarely presents a normal appearance.

(B) The atypical forms of sinus infection occur in cases of acute mastoiditis, especially in young people. There are two groups.

(1) Cases in which the tympanic floor is dehiscant, so that the tympanic mucosa is in direct contact with the dome of the jugular bulb. In these cases virulent micro-organisms may pass through the tympanic floor by way of the small veins which open into the anterior chamber of the dome, and by reason of the peculiar swirl which the blood-stream makes in the dome, give rise to the formation of a primary bulb thrombosis. In such cases the wall of the sigmoid sinus appears normal.

(2) In some cases of acute middle-ear inflammation the infection rapidly reaches the sinus because of mal-development or non-development of intervening bony structures—*i. e.*, primary sigmoid sinus thrombosis develops as the sequel of the tympanic infection. In this group the sinus wall, which is very far forward, usually appears normal.

Kopetzky then gives a brief *résumé* of McEwen's work on the venous channels connected with the petro-mastoid bone.

Clinical Aspect.—If the otitis media spreads to the mastoid process, it gives rise to signs characteristic of the tissues involved. In the so-called "painless" type—the coalescing form of mastoiditis—[A (1)] the pus flows in great amount from the external auditory canal, and finally, when the disease reaches the cortex, the periosteal covering, which is sensitive, gives rise to pain, and so calls attention to the ear. The subsequent onset of pyæmic temperature points the way to cure.

In the form with an abnormally far forward sinus [B (2)] there is no anatomical structure in the mastoid to give rise to symptoms; as there are no mastoid cells to cause purulent exudate there are no lesions to eventually reach the cortex and make it sensitive to pressure. In this group there is a small antrum and no cells, the mastoid process being mainly occupied by the sigmoid sinus. The external contour of the mastoid process, however, would lead one to expect the usual anatomical structure. Sinus phlebitis and thrombosis here arise by direct invasion of the blood channels from the small veins from the tympanic cavity. The entire meshwork of veins, instead of being spread out to embrace a normally constructed petro-mastoid, is contracted to hold the anomaly which the process presents. The onset of such cases is often that of a simple purulent otitis media, and either before spontaneous rupture of the drum membrane occurs, or just as it occurs, a septicopyæmia develops. Usually these cases remain unrecognised, and are treated by the physician. The first serious complaint is of headache and chill, though eventually typical pyæmic symptoms arise. When joint lesions or multiple abscesses in the muscles develop, or when finally a septic endocarditis supervenes, the cases are regarded by the physician as quite straightforward. As a matter of fact, all these lesions are, of course, metastatic. [The abstractor had one case of the type [B (1)] which, for more than a week, was looked upon by a physician as "post-influenzal upset of the heat regulating mechanism."]

Kopetzky records the two following cases:

CASE 1.—Child of six years with chronic purulent otitis media (right) following scarlet fever. Sudden attack of vomiting with rise of temperature and pain in right ear. No complaint of left ear. *Radical mastoid operation*: Well developed mastoid process; cells filled with fluid pus and pseudo-cholesteatoma; knee of sigmoid sinus exposed and found healthy. Two days later temperature 102° F.; restlessness with pain in operated ear. Next day normal temperature, but pulse 104. Next day vomiting and restlessness, child tore off his bandages; temperature 101° F., pulse 122. On following day patient unconscious; temperature 102° F., pulse 132; no signs of meningitis. *Second operation*: Dura of middle fossa and sinus quite normal; death later in the day. *Autopsy report*: Small hæmorrhages in brain; sinus on right side healthy. The *left* sinus showed a yellow thrombus which completely filled the sinus from the knee to beyond the bulb. Thrombus partly organised. Left tympanic membrane intact, but middle ear contained pus. Antrum small, no other cells at all present. The mastoid process was composed of a thin shell of bone, and its interior was hollowed out to be filled by the sigmoid sinus. Kopetzky points out that on the right side there was a regular sequence of symptoms—mastoid pain, purulent discharge, etc.—and that this masked the onset of the phlebitis and thrombosis on the left side. The absence of symptoms from the left ear has been explained in the previous part of the abstract.

CASE 2.—Male, aged forty-seven, complained of severe headache for twenty-one days before admission. At the beginning of his illness he had a chill, followed by profuse perspiration, and had similar attacks for two or three nights thereafter. He was attended by a doctor, and the attacks ceased. On admission, temperature 103° F., pulse 114; diagnosis made, probably typhoid fever. At six p.m. the patient, who had gradually become semi-comatose, had a distinct chill; right drumhead white and lustreless; incision of the drumhead yielded pus. No sagging of meatal wall and no mastoid tenderness. *Mastoid operation*: Cortex normal, *sinus immediately presented close to posterior meatal wall*; retractor inserted between sinus and bone, and eventually mastoid antrum reached; antrum of normal size and contained granulations, but no fluid pus. Sinus wall normal, nevertheless plugs introduced between bone and sinus, one at the upper knee and one lower down. Intervening sinus wall incised, and cavity found to be occupied by red thrombus. Upper plug removed, but no bleeding. Internal jugular resected from $\frac{1}{2}$ in. above subclavian to above facial. Neck wound sutured. Free bleeding obtained a little beyond upper knee, but no bleeding from bulb. Gauze drain placed in bulb. Uneventful recovery. Kopetzky remarks that the absence of all mastoid symptoms in this case is characteristic of the anomaly of mastoid structure.

J. S. Fraser.

MISCELLANEOUS.

Myron Metzenbaum (Cleveland, Ohio).—Scopolamine in Nose and Throat Operations. "The Laryngoscope," 1915, p. 95.

Metzenbaum reports on the administration of scopolamine or hyoscine hydrobromide as a preliminary injection before 2000 operations on the ear, nose, and throat. Adults were given $\frac{1}{100}$ th of a grain, usually by the mouth, from a half to one hour before operation under local or general anaesthesia. Children got $\frac{1}{200}$ th of a grain in pill form. Scopolamine acts as though it were made up of two radicals, one of which is similar to atropin. As children tolerate belladonna very well, they also tolerate scopolamine. Scopolamine does not, however, check the secretion of the kidneys or salivary glands, but greatly diminishes mucus secretion. The other radical of scopolamine is a decided brain sedative which changes pre-operative nervous fear and irritability into a condition of calm and quietude. Patients who have had scopolamine go under ether (or a mixture of nitrous oxide and oxygen gas) much more rapidly than usual. In nasal operations the preliminary administration of scopolamine lessens the amount and strength of cocaine which must be used. Scopolamine is free from any immediate or remote detrimental effects.

J. S. Fraser.

OBITUARY.

It is with deep regret that we intimate the death of two notable Spanish colleagues, Dr. Suncé y Molist, of Barcelona, and Dr. Gallegos, of Seville.

Dr. Suncé y Molist was one of the very few pure otologists in Spain, and was everywhere regarded as one of the great medical personalities of the Peninsula. His professional career began as long ago as 1868, and the enthusiasm and energy with which he applied himself to his life's work won for him a commanding position not only in his own country