

## ABSTRACTS.

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*Authors of Original Communications on Oto-laryngology in other Journals are invited to send a copy, or two reprints, to the JOURNAL OF LARYNGOLOGY. If they are willing, at the same time, to submit their own abstract (in English, French, Italian or German) it will be welcomed.*

### PHARYNX.

**A New Instrument for Tonsillectomy.**—Harry L. Baum. "The Laryngoscope," February, 1919, p. 96.

Baum takes it as fundamental that tonsillectomy may be best done, in the majority of cases, by the employment of the cold wire snare without preliminary dissection. His instrument is modelled after the principle of the Mackenzie tonsillotome with the handle at an obtuse angle from the shaft. No. 9 piano wire is threaded into the slide from the sides and pulled down after threading until it fits into the grooves cut on either side of the trough of the instrument. The convexity of the wire loop is then pushed up through the throat of the instrument until it disappears in the groove of the fenestrum. No previous dissection is necessary. The instrument is introduced exactly as if for guillotine enucleation, and the tonsil is forced through the fenestrum by means of judicial digital manipulation. When the tonsil is entirely through the fenestrum it is fixed in that position by pulling the wire down firmly with the first and second fingers on the trigger of the instrument. The operation is completed by turning down the threaded wheel, thus pulling the slide back and gradually tightening the wire until separation is complete. This can be done as slowly as desired. A slow separation predisposes less to bleeding than a more rapid one. The tonsil remains in the grasp of the instrument after removal as a few fibres of tissue are drawn into the throat of the instrument by the wire. Before proceeding to the other side the slide is pushed back to its original position, carrying the wire into place as before. The size of the fenestrum is 21 by 16 mm.

*J. S. Fraser.*

### NOSE.

**Dislocation of the Inferior Turbinate in the Treatment of Nasal Obstruction.**—A. Pugnât. "Rev. de Laryngol.," No. 10, 1919.

A short note recommending fracture and displacement laterally of the turbinate in place of cauterisation and turbinotomy. The advantage claimed for it over the other two procedures is the absence of raw surfaces and septic complications resulting therefrom. Excellent functional results are said to follow this method. *J. K. Milne Dickie.*

**On the Infective Origin of Ozæna.**—U. L. Torrini. "Arch. Ital. di di Laringol.," Anno xxxviii, fasc. 3-4, 1919.

The author has carried out a series of inoculation experiments with the *Bacillus fetidus ozænae* of Perez on rabbits. His results are more or less negative. The injection into the marginal vein of the ear of a broth culture of *Bacillus fetidus ozænae* did in no case produce death in rabbits even of the smallest size, and on the whole was well tolerated. In one or two cases there was a moderate rhinorrhœa lasting a day or two, and a

bacillus was found in the nose with characteristics similar to those of *B. Perez*. There were no bad effects from the inoculation, and the animals even increased distinctly in weight. In *post-mortem* examinations no alterations in the nose could be discovered, either a short or long time afterwards. There was nothing to note in the other organs. In newly-born animals whose mothers had previously been inoculated there was no sign of any pathological condition in the nose.

J. K. Milne Dickie.

**Bacteriological and Clinical Aspects of Infection of the Accessory Sinuses.**—J. W. Babcock. "The Laryngoscope," July, 1918, p. 527.

The material used consisted of the mucopus obtained from 100 cases with infected sinus or sinuses treated in the private practice of Dr. Coakley. Anaërobic cultures were made in those cases in which a foul odour was present, while smears were made as a routine. The bacterial findings in the smears very closely agreed with the subsequent findings on culture. The cytological findings confirm the work of Darling, who found that the presence of an excess of lymphocytes, especially when coupled with the presence of streptococci, renders the chance of cure without a radical operation distinctly small. Of the 100 cases 53 were acute and 47 chronic.

In the acute cases the following bacteria were found: Pneumococcus—type not determined, 5; Group II, 9; Group III, 3; Group IV, 15; total, 32. Streptococcus—hæmolytic, 3; non-hæmolytic, 2; total, 5. Staphylococcus—*aureus*, 13; *albus*, 17; total, 30. *B. influenzae*, 4; *M. catarrhalis*, 2; diphtheroid bacillus, 2; *B. coli communis*, 2; *B. fæcalis alkaligenes*, 3; *B. aureus*, 1; *B. proteus*, 3; *B. subtilis*, 1; no growth, 4. This makes eleven different organisms occurring eighty-five times.

The chronic cases showed: Pneumococcus—type not determined, 1; Group II, 1; Group IV, 4; total 6. Streptococcus—hæmolytic, 15; non-hæmolytic 4; total, 19. Staphylococcus—*aureus*, 18; *albus*, 20; total, 38. *B. influenzae*, 2; *B. mucus capsulatus*, 5; diphtheroid bacillus, 4; *B. coli communis*, 2; *B. fæcalis alkaligenes*, 3; *B. aureus*, 3; *B. proteus*, 1; *M. tetragenus*, 3; *B. subtilis*, 1; no growth, 1. This makes thirteen different organisms occurring ninety times.

Clinical aspect (cases grouped according to classification of Turner and Lewis). Acute cases:

Pneumococcus group, 32: all of the cases were cured by lavage; average, eight and three-quarter days. Streptococcus group, 5: four cases were cured. Staphylococcus group, 22: all the cases were cured. External incision and partial exenteration of ethmoid was performed on one case, a child aged five, who had an extremely violent infection with orbital cellulitis.

Chronic cases: Pneumococcus group, 6: three were cured (50 per cent.) and three improved. Two operations were performed. Streptococcus group, 19: sixteen were cured and three were improved. Eight operations were performed. Staphylococcus group, 21; thirteen cases were cured and eight improved. Nine operations.

With regard to the pathway of infection Babcock's findings do not agree with those of Turner and Lewis, who thought one-third of the cases of antrum infection were of dental origin. Of 109 infected antra only eight seemed to have any connection at all with infected tooth-roots, and in none of them was any connection between the antrum and the infected area established on removal of the tooth.

J. S. Fraser.

**Anaphylaxis due to Pollen Protein: Results of Treatment.**—William Scheppegrell (New Orleans). "The Laryngoscope," December, 1918, p. 853.

Scheppegrell states that hay-fever is always due to the inhalation of pollens, and that only the wind-borne pollens are responsible for the attacks. Insect-pollinated plants, such as roses, golden rods, honey-suckles, chrysanthemums, lilies of the valley, daisies and strawberry blossoms can be eliminated. Spasmodic vasomotor disturbances may be due to easily avoidable causes, *e. g.* direct inhalation of certain flowers, of the emanations (dandruff protein, etc.) from horses, dogs and cats. These form less than 1 per cent. of the number of "hay-fever" cases. In some persons the ingestion of certain articles of food causes anaphylaxis, of which hay-fever symptoms may form a part. The prophylaxis in these cases is the avoidance of the special exposure which causes the anaphylactic symptoms.

Hay-fever victims represent about 1 per cent. of the population of the United States. Hay-fever is due to the absorption of the protein contents of inhaled pollens, and the toxin-like substance liberated by the proteolytic action of the cells on the pollen protein. In 99 per cent. of persons the proteolytic enzymes digest the protein of the inhaled pollen so slowly that the products are absorbed without disturbing the normal functional equilibrium. In the hay-fever subject, however, the entrance of the pollen proteins is followed by such rapid digestion that the products are not neutralised and act as a toxin.

Most hay-fever patients have some form of pruritus associated with their symptoms. Asthma is present in 40 per cent. of cases. The distribution of the nerve branches from the sphenopalatine ganglion over the turbinals and its connection with the pneumo-gastric nerve is one of the principal causes of this frequency.

*Treatment.*—A series of 312 cases were treated by pollen extracts, bacterial vaccines or a combination of these. The diet was not restricted. *Result:* Seasonal cures, 45 per cent.; marked improvement, 42 per cent.; unimproved or the treatment discontinued, 13 per cent. In the cured and improved cases, pollen extracts alone were used in 41 per cent., pollen extracts and bacterial vaccines in 54 per cent., and vaccines only in 5 per cent.

*Diagnostic Test and Prophylaxis*—This consists in injecting into (not under) the skin of the forearm five units of the pollen to be tested (grass pollens in the spring and ragweeds in the fall). After the character and degree of the sensitisation has been determined, the preventive treatment is commenced. If the patient is sensitive to both grass and ragweed pollens, the preventive treatment for the grass pollens is commenced six weeks before the grass season opens, and similarly for the ragweed pollens. Scheppegrell does not consider it advisable to use the combined pollens. Pollen extracts are usually injected two or three times weekly and gradually increased to 30 to 50 units. Medium doses have given best results. Large doses may produce severe reactions, also eczema, urticaria and angioneurotic oedema.

*Curative Treatment.*—After the attacks have developed, better results are obtained from a combination of the pollen and vaccine therapies. Stock vaccines were used in most cases, made from various proportions of *B. Friedlander*, *M. catarrhalis*, pneumococcus, *Streptococcus pyogenes*, *Staphylococcus aureus* and *albus*. As soon as the acute attack has subsided, the extract of the pollen responsible for the hay-fever is

injected, the dose being 5 to 20 units. In all cases the treatment is discontinued when the pollenometric records show that the atmospheric pollens responsible for the attack have disappeared. In the following season the diagnostic test decides whether the patient is still immune. In spite of the large number of injections there have been no cases of infection nor of anaphylactic shock.

*Hygienic measures* are as important as in typhoid fever and malaria. Patients are given charts of their neighbourhood, with instructions to locate lots that are infected with weeds. The marked charts are sent to the City Board of Health, which notifies the owners to cut the weeds under penalty. The New Orleans Board of Health reduced the number of spring hay-fever cases to less than 50 per cent. Operations for non-inflammatory nasal obstructions are of benefit in hay-fever in only a small percentage of cases, and are rarely advisable unless indicated for other reasons. Cauterisations have caused more harm than benefit. Urinalysis should be made in every case, and when there is acidosis or other abnormal condition the usual measures applied.

J. S. Fraser.

**The Blood-Clot Dressing in Frontal Sinus Surgery.—George E. Davis.**  
"The Laryngoscope," January, 1919, p. 5.

Blake of Boston and Reik of Baltimore introduced the blood-clot method of healing after the simple mastoid operation. The physiological basis of the blood-clot dressing depends on the well-known antiseptic powers of normal circulating blood, which is enhanced when it coagulates or clots. Second, the blood-clot fills in the dead space and forms a framework for the reconstruction of the particular tissue in which it is lodged. The blood-clot loses its antiseptic power in about forty-eight hours; hence it is most important that *thorough exenteration* of all diseased tissue be carried out.

*Case record.*—Male, aged thirty-nine. Chronic frontal sinus suppuration with orbital complication. Anterior wall floor and bridge all removed, as the sinus was very large. Marked deformity seemed inevitable. The wound was packed for twenty-four hours before "blood-clot" treatment was commenced; thereafter the wound healed completely by first intention. The patient left at the end of a week. The only intranasal treatment administered was the introduction of carbolated vaseline night and morning. Result: the contour of the orbital arch was preserved with almost no deformity whatever.

J. S. Fraser.

**Report of a Case of Meningitis following Operation on the Middle Turbinate, with Autopsy Findings, showing an Old Perforation of the Cribriform Plate of the Ethmoid.—T. J. Harris.** "Annals of Otology," xxvii, p. 1241.

A young officer, aged twenty-six. History of fractured nose from football. Obstruction from right enlarged middle turbinate found on routine examination. Removal of cystic middle turbinate. Discharged from hospital on third day. Five days later, headache and vomiting. Died next night. Autopsy showed acute fibrino-purulent pneumococcal meningitis. Smooth-sized round hole, 5 mm. in diameter, to right of crista galli, with a necrotic centre. A note is appended of deaths from turbinate operations. [The case is an illustration of the risk attached in allowing nasal operation cases to leave hospital too soon after operation.—M. Y.]

Macleod Yearsley.

## LARYNX.

The **Ætiology of Speech Defects.**—May Kirk Scripture. "The Laryngoscope," January, 1918, p. 12.

The writer believes that there are about half a million speech defectives in the United States. This number is much in excess of the number of the blind, the deaf and the dumb, the insane or the feeble-minded. During the past year or two numerous cities in America have started systematic arrangements for speech improvement in the public schools. Slovenly language should be no more accepted than slovenly manners or dress. Scripture states that the average American voice is shrill and the speech careless compared to the voice and speech of an Englishman, and that the vicious American speech habits are a serious handicap to national efficiency, as they impair the speed and accuracy of communication in business and social life. A general insistence on decent speech would promote better hygiene of the entire vocal tract and would lead to the correction of physical irregularities. A people that has learned the importance of the care of its teeth should not be hard to convince of the importance of the care of its utterance.

With the collaboration of Eugene Jackson, Scripture has prepared a series of exercises—simple proverbs, poems and stories—but has avoided trick sentences which do not occur in everyday life. They have divided the speech mechanism into its four constituents—breathing phonation, articulation and thinking—and have provided exercises not only for each of these, but also for bringing about a proper co-ordination of the four. There would be less need for the correction of speech defects if attention to distinct enunciation, articulation, timbre and rhythm were taught in the first year of school life. This attention should be started in the home and parents should insist upon distinct utterance—no baby-talk, no elision of syllables, no slang. Nervous habits should not be allowed to creep into speech.

In their Speech Research Laboratory at Columbia University, Scripture and Jackson are endeavouring to study scientifically the causes and effects of speech disorders. (1) Measurements are being taken of the movements of the muscles during speech; both thoracic and abdominal breathing curves are taken along with the pulse. Movements directly involved in the forming of speech are measured by three tambours. A U-shaped piece fits tightly against the larynx and records through a lever, while another lever fits under the chin. A silver mouth-piece is also introduced, which fits the roof of the mouth, and a diaphragm stretched across this so that the slightest movement of the tongue is recorded. The time is taken in seconds, twentieths and one hundredths of a second. The writers are able to make eight records at one time. (2) On the supposition that "the set of the mind" or atmosphere under which a person is speaking is a powerful factor in speech, the writers propose to create artificial atmospheres and mark the effect on speech. Efforts to introspect our speech are almost futile and yet we are largely dependent upon this method. (3) Attention is being paid in the clinic to the vision, hearing, mouth, nasal cavities, nervous system, etc. Under these conditions 4000 speech cases were treated during the year 1915-16.

The human vocal instrument has four elements: First, a motor—the respiratory muscles and lungs; second, a vibrator—the vocal cords; third, a resonator—the throat, mouth, and the nasal and head cavities (these three being common to all musical instruments); and fourth, an articulator—the tongue, lips, cheeks, teeth and palate, which all other

instruments lack. Qualities of tone expressing feelings such as grief or joy are made possible with this human instrument because of the interaction of the four parts. The writers see not only the patient but also his parents, and can thus note that hereditary diseases are prevalent and are often the causes of speech defect. They take advantage of the clinics of neurology, general medicine and laryngology for the investigation of their cases. No progress can be made with the correction of speech disorders until the physical condition of the patient has been thoroughly diagnosed and prescribed for. They remark, however, that speech disorders are not the only diseases which may be purely functional, and there is nothing more effective in the treatment of such cases than the influence of a strong personality. Where poor habits of speech have persisted for years the handicap is great, as the patient's whole character becomes morose, introspective and cynical. The writer holds that the capacity of the stutterer to speak is related to certain states of mind, and that a permanent impairment of the nervous system is present. The writer distinguishes between (1) stuttering and (2) incorrect speech, which they also call lisping, mispronunciation or stammering. This latter form of speech defect may be anatomical or developmental. The former is due to malformation of one or more organs of articulation, while the developmental stammer is caused by incorrect functioning—as in the baby-talk of normal children beyond the age of six years. Scripture recognises such conditions as cluttering, negligent speech, nasality, mutism, uvular disturbances, cleft palate, chronic enlargement of the tonsils, etc.

The causes of speech defects are classified as follows: (1) Physical; (2) mental; (3) moral; (4) environmental; (5) hereditary. Foremost among the physical causes is a poorly developed sense of hearing. Quite frequently the trouble lies in the tongue itself, and, apart from slight operation, tongue gymnastics will do much in effecting a cure. Scripture also mentions rigidity of the jaws, a highly arched palate, overlapping of the jaws and irregularities of the teeth. The latter may be greatly helped by orthodontia. Seventy per cent. of New York school children have very poor teeth. With regard to cleft palate, Scripture finds that in many cases a prosthetic restoration of the tissue undoubtedly gives better results than operation. She finds that nervousness, is a great cause of speech troubles, and that stuttering may be only the symptom of a generally poor state of the nervous system resulting from shock, illness, malnutrition, over-work, or too rapid growth. Scripture agrees with Makuen that operation is often advisable for the relief of nose or throat trouble in stutterers.

A large number of cases of defective speech could be avoided entirely if proper care were exercised. The slipshod, careless speech that is heard among teachers is imitated by their pupils. Scripture gives the case of a boy, aged ten, who stuttered most pitifully and was afflicted by chorea. He had been scolded and whipped repeatedly by his parents so that he had become afraid of everyone he met. Under care it was not long before he lost his fear and his stuttering soon vanished. There are too many teachers who seek to rule their classrooms by fear. Children's minds are active, but unfortunately their command of language does not keep pace with the development of their thinking powers. They hesitate, become impatient, and sometimes stutter, especially if predisposed to nervousness. Previous failures disturb their mental condition. They are seized with "stage fright" before a single person. "When young children hesitate from inadequacy of verbal power, stop them at once.

Tell them to think what they are going to say before they say it. Insist that they say it slowly and with continuity. Children are infinitely more emotional than adults. We must seek a cure in the proper training of the emotions—self-control."

At the age of adolescence sex-consciousness comes into existence. Social practice has forced the child to maintain silence on all things sexual. The periods at which stuttering most frequently takes place (at the beginning of school life (fear) and at the adolescent age self-consciousness). There is a marked increase in the number of cases of speech defects, notably stuttering, shortly after the beginning of school life. School life has made a virtue of immobility and limitation of speech, but the child's welfare requires movement and free speech, or at least no unnecessary repression. Teachers report that stutterers who spend their school vacation in the country are much improved when they return, but are as bad as ever a few weeks after the opening of school. The prevailing curricula impose a severe nervous strain upon the child, and nervousness almost invariably shows its symptoms in one's speech. Children who stutter should, as far as possible, be taught separately. They should also be kept from association with adults who stutter, for, consciously or unconsciously, they will imitate.

Mrs. Scripture has also articles in the February, March, May and June numbers of "The Laryngoscope" as follows: "Diagnosis of Speech Defects," February, 1918, p. 78; "Stuttering and Stammering (Lisping)," March, 1918, p. 166; "Aphasia," May, 1918, p. 408; "Abnormal Voices: Falsetto, Nasality, Hoarseness, Cleft Palate Speech, Choreatic Speech, Anarthria, The Voice of the Deaf and the Mental Deficient," June, 1918, p. 457.

*J. S. Fraser.*

**Stenosis of the Larynx and Trachea following Diphtheria.—Lynah.**  
"The Laryngoscope," September, 1918, p. 629.

Lynah classifies the stenoses as follows: (1) Neurotic; (2) spasmodic; (3) traumatic; (4) pathologic.

*Neurotic.*—There is a marked neurotic element which accompanies all cases of laryngo-tracheal stenosis. The fear of having an intubation tube or tracheal cannula removed promotes excitement, especially in children. It is much easier for such a child to breathe through a properly fitting tube.

*Spasmodic.*—Spasm of the glottis is usually the result of wearing an intubation tube for a long period. The wide neck tube virtually acts as a splint and disturbs the balance of power between the adductors and abductors. The abductors become fatigued and adductor spasm is the natural result. To overcome this spasm an extremely narrow neck tube with a long antero-posterior lumen should be used. This type of tube allows for some movement of the vocal cords. In cases in which digital intubation has been constantly performed, the writer has been able to deceive the patient by removing the tube by direct inspection and immediately introducing a small tracheoscope or bronchoscope between the cords. After a few minutes the tracheoscope is gradually withdrawn. The child almost invariably remains permanently detubated. Several of these children were not aware that their tubes had been removed, and if the nurses asked them if they wanted the tubes removed they immediately became greatly excited and very dyspnoic.

*Traumatic.*—(a) Intubational: Faulty intubation is often one of the primary causes of chronic post-diphtheritic stenosis. Direct inspection may show (1) the hole which has been driven into the laryngeal

ventricle, or (2) a fracture of the cricoid cartilage, (3) intubation ulcers when the retention swell at the cricoid cartilage was too thick for the narrow lumen at that level. Tubal pressure along with the necrotic infiltrative diphtheritic process is responsible for necrosis of the cricoid cartilage, and therefore Lynch prefers a long, narrow-lumen tube with a bulbous tracheal end. (b) *Tracheotomic*: Chronic laryngeal stenosis has followed tracheotomy just as frequently as it has followed intubation. Tracheotomy is often performed too late and is made a stab emergency operation. (As a means of relieving dyspnoea reintubation frequently fails even in the hands of the most skilful intubator.) In the rapid stab emergency tracheotomy the cricoid and even the thyroid are often divided, while at times the posterior tracheal wall is severed and the incision carried into the oesophagus. Tracheotomy, performed properly and with plenty of time, is one of the most life-saving operations. Though tracheal cannular ulcerations are extremely rare, anterior and posterior spur formations are frequent, especially when an oversize cannula is used.

*Pathologic.*—Diphtheria is a dissecting necrotic disease, and upon the duration and degree of involvement of the larynx and trachea depend the subsequent changes. At the same time traumatism by instrumental means is also largely a contributing factor. The following pathological lesions are usually present in the cicatricial types of chronic stenosis. (a) *Edema*: Oedema, when supraglottic, usually involves the aryteno-epiglottic fold and the ventricular bands. The oedema is much more firm than that from other infectious causes. The greatly thickened ventricular bands come together as soon as the tube is removed. When the oedema is due to the head of the tube being too large a very flat-headed tube should be introduced. Gentle galvano-puncture will also be of great aid in relieving this condition. When the oedema is confined to the subglottic region the galvano-cautery will cure the great majority of cases. The writer does not perform tracheotomy as a preliminary. He prefers to use a small tracheoscope with a long slanting end and a very fine cautery. As there is always some reaction Lynch recommends reintubation of the patient, using a tube with a very flat head and narrow neck with an olive bulbous tracheal retention swell. (b) *Polypoid masses*: These may be supraglottic (ventricular bands and base of the epiglottis) in retained tube cases, but they are also found in the cricoid region, especially following perichondritis. Masses which hang over the lumen of the tube and cause valve-like obstruction to inspiration should be removed while the tube is *in situ*. (c) *Decubitus ulcers*: These are rare when a proper-fitting, under-sized tube or cannula is used. They are frequent when tubes with a large retaining swell are used to stop the constant coughing up of the tube. (d) *Paralysis* (? crico-arytenoid ankylosis): Post-diphtheritic paralysis of the motor nerves of the larynx is an extremely rare condition. Crico-arytenoid ankylosis and infiltrations have been frequently mistaken for paralysis. The writer examined by direct means 100 cases of severe nasal and pharyngeal diphtheria with toxic post-diphtheritic paralysis, and in each instance the motor nerve of the larynx was seen to be in good working order. The superior laryngeal nerve was, however, involved, and there was profound local anaesthesia. These patients had considerable difficulty in coughing up thick, tenacious mucus for the explosive cough reflex was lost. The patient practically drowned in his own secretions. (e) *Perichondritis and chondritis*: In severe cases perichondritis and chondritis, especially at the cricoid level, are the chief factors in causing persistent coughing up of the intubation tube.

Frequently peri-laryngeal abscesses give the first warning that the cartilage is becoming destroyed. The arytaenoid cartilages may also become necrotic. In most cases of post-diphtheritic laryngeal stenosis one finds that there has been a period of persistent auto-extubation from the first to the fourth week after the primary diphtheritic infection. Severe cases who survive invariably become chronic. After the destruction of the cartilage the areas of perichondrium which remain endeavour to build up the support. The cricoid ring is in part converted into bone. (f) *Metaplastic and endochondral bony formations* occur in almost all of the cases when there has been extensive chondritis and perichondritis.

The writer tries all of the simplest methods first before any radical procedure is attempted. In cases with complete laryngo-tracheal stenosis laryngostomy is the best and only means of cure. The voice is much better in cases cured by intubational dilatation provided narrow-neck tubes are used. The article is well illustrated. *J. S. Fraser.*

**Stereoscopic Photography of the Larynx.**—J. Garel. "Rev. de Laryngol.," No. 11, 1919.

The author describes in detail his apparatus for taking stereoscopic photographs of the larynx. It is small and compact, and has the advantage that the operator can watch the larynx at the exact moment when the snapshots are being taken. Several photographs are shown.

*J. K. Milne Dickie.*

### E.A.R.

**The Pathology of Middle-ear Tuberculosis.**—B. Agazzi. "Monatsschr. f. Ohrenheilk.," 48 Jahrg., H. 5, 1914.

The writer has examined the temporal bones in six children dying of general tuberculosis, of which four were of the acute miliary type. In the first, on histological examination, the tympanic cavity, mastoid cells and the bone were the seat of caseous tuberculosis. There were no signs of tubercle in the tube except in the bony part. The primary lesion in this case was the parotid gland of the same side. The writer believes that the infection was direct through the bone. In the second, one of acute miliary tuberculosis, there was an acute streptococcal otitis media. The third case, one of tubercular meningitis, had also an acute streptococcal otitis media. The fourth case, one of phthisis, had definite tuberculosis of the middle ear. The writer concludes that, as no tubercles could be seen in the tube, the infection must be hæmatogenous. In the fifth case, one of meningitis, the ears were normal. The sixth case, one of general miliary tuberculosis, showed an acute streptococcal otitis media.

The author points out that not all the otites in severe tuberculosis of children are tubercular, but are as often due to septic organisms as in any other weakening disease. Tuberculosis of the ear does not always spread through the tube, but may come directly through the bone. Hæmatogenous infection with resulting foci in the bone is a possibility not to be overlooked.

*J. K. Milne Dickie.*

**Violent Lesion of the Ear with Fracture of the Petrous and Paralysis of the Facial Nerve; Operation; Rapid Recovery of Function of the Nerve Resulting from Decompression.**—B. Agazzi. "Boll. del Prof. Grazi," fasc. 11, Anno xxxvi, 1918.

The rapid recovery of the facial nerve in this case is attributed by Agazzi to the early operation and avoidance of sepsis.

A soldier was hit on the right side of head by stone from mine explosion on February 9, 1917. He remembered being hit, but nothing during next three days. Admitted to hospital February 10, with large bruise of right temporo-parietal region and hæmorrhage from right ear, which continued till February 12, when he regained consciousness. Complained of pain in right side of head, deafness, and noises in the right ear, vertigo, dryness of mouth and watering of right eye. Face drawn to left. No rise of temperature. Was transferred to oto-laryngological department February 18. Examination showed typical complete paralysis of right facial nerve. Bruising over right mastoid, which was also tender on pressure. External meatus full of blood-clot. After removal there was lowering of inner end of roof of osseous meatus. Fracture felt. Incus found lying in meatus. Upper part of membrane ruptured. Functional examination gave Schwabach diminished, Rinne absolute negative right. Whisper heard close to right ear. Tuning-fork tests almost normal on left side, slight shortening of bone-conduction, especially with highest tones. Spontaneous nystagmus to left on extreme deviation. Nystagmus diminished by caloric test. Loss of taste for sweetness over anterior two-thirds of tongue on right side.

From the examination it was thought that the lesion was probably in the tympanic part of the facial nerve. Faradic stimulation of facial nerves twelve days after showed equal excitability of both sides. This pointed to compression of the nerve rather than division.

Operation thirteen days after injury. Mastoid cells full of clot. A fissure found in posterior wall of meatus. Small quadrilateral piece of bone came away from just below the bend of the nerve, which was seen to be covered with blood-clot. Clot and bony *débris* removed from middle ear. Körner flap. Meatus drained. Posterior wound closed.

On same day patient could partly close right eye. Nine days later could shut right eye almost completely. Face muscles contract slightly.

In just over three weeks the paralysis had gone completely, but the patient remained totally deaf on right side. Right vestibular function normal at end of two months.

The paralysis in this case was evidently due to pressure of the small loose piece of bone on the nerve. *J. K. Milne Dickie.*

#### Cured Otitic Meningites (Sixteen Personal Observations).—H. Aboulker.

"Rev. de Laryngol.," Nos. 9 and 10, 1919.

In this interesting if somewhat long communication the writer makes the following distinctions in the various types of meningitis:

(1) Septic purulent meningitis, *i.e.* with cloudy fluid containing organisms.

(2) Aseptic purulent meningitis with cloudy fluid, but no organisms.

(3) Serous aseptic meningitis with clear fluid and no organisms.

(4) Serous septic meningitis with clear fluid containing organisms.

He further subdivides aseptic meningitis into diffuse and hypertensive forms.

The diffuse aseptic form is characterised by excess of clear cerebrospinal fluid, albumen in excess, diminution of glucose, and leucocytes in excess. The hypertensive form is characterised by excess of normal cerebrospinal fluid, and gives the signs of increased intracranial pressure. It may be localised in the subarachnoid or in the ventricles. The hypertensive form is always cured by simple removal of the septic focus in the mastoid, etc.

It is frequently very difficult to distinguish between cerebral abscess and hypertensive aseptic meningitis. Abscess develops slowly and silently, while meningitis on the contrary has "une évolution bruyante, brutale, rapide." The symptoms are much more evident in the case of meningitis than in the case of abscess. When in doubt one must think of abscess. Lumbar puncture will not help much, as in both cases there is clear fluid under tension. The meninges and brain must be explored, and here the writer emphasises the importance of exploring, not through the septic mastoid cavity, but through a separate clean operation wound in the middle or posterior fossa. This method is almost free from the risk of introducing septic organisms into the brain or meninges.

Of the writer's sixteen cases only three were septic meningitis. Of the remaining thirteen aseptic cases five were diffuse and eight hypertensive meningitis.

*J. K. Milne Dickie.*

**Plastic Surgical Treatment of Stenoses and Cicatricial Atresiae of the Auditory Meatus.—C. Caldera.** "Arch. Ital. di Otol.," xxx, 1, January, 1919.

The writer has had to deal with a number of deep ulcerations and stenoses of the meatus. The healing of those ulcers is very slow, lasting usually two to three months, and there is a considerable tendency to stenosis afterwards.

The method referred to is one where a flap is cut from the tissues immediately in front of the tragus. The attachment of the flap is just below the tragus, and the incisions extend upwards  $2\frac{1}{2}$  cm. The vascular supply and vitality of such flap is very good. Some subcutaneous tissue is taken along with the skin. If one is dealing with an ulcer of the meatus, one simply cures away the granulations and applies the flap to the part. If, on the other hand, one is dealing with an old cicatricial stenosis, one must first dilate the stricture, cut out a segment of the skin and scar-tissue, and then apply the flap as in the other type of case. The raw area left in front of the ear is stitched up. The meatus is lightly packed with vaseline gauze and the packing is left for forty-eight hours. In a few days healing is complete and there is very little tendency for the meatus to contract.

The operation can be done under local anæsthesia.

*J. K. Milne Dickie.*

**Plastic Operation for Stenosis of External Auditory Meatus.—P. Caliceti.** "Arch. Ital. di Otol.," xxx, 1, January, 1919.

Cases of ulceration or stenosis of the meatus were very common in the Italian Army, partly from wounds and partly from application of caustics with a view to malingering.

The method of the writer is to make a retro-auricular incision and free the posterior wall of the meatus completely. An incision is then made along the posterior wall of the meatus after forcible dilatation of the canal. Two vertical incisions are made at the outer end of this incision. Two small triangular flaps are thus cut, and after removal of the cicatricial tissue causing the stricture, these flaps are stitched to the edge of the retro-auricular wound. There is left a large raw area on the posterior wall.

The meatus is treated by tamponage and dilatation and heals in about a month.

*J. K. Milne Dickie.*

## BRONCHI AND ŒSOPHAGUS.

**A Manikin for Practice of Bronchoscopy and Œsophagoscopy.**—Thomas Hubbard. "The Laryngoscope," November, 1918, p. 851.

Hubbard describes a manikin constructed on approximate anatomical lines and relations, designed for the use of tubes and for the "trying out" of instruments in the supine posture. He also shows shield hooks designed to aid in releasing impacted foreign bodies in the œsophagus.

*J. S. Fraser.*

**Denture in Trachea.**—J. Rozier. "Revue de Laryngologie," April 30, 1919.

Soldier, wounded June 11, 1918. Operation. After recovering from chloroform missed his denture. On June 13, 1918, had slight trouble in swallowing. A few days later was a little short of breath. Chest examined. Some *râles* heard. Patient had been gassed, and had some hoarseness in consequence. This improved a little with inhalations. Patient was fairly well for next two months except for some shortness of breath on exertion and severe coughing attacks at night. Larynx examined and diagnosed acute laryngitis. On October 8, 1918, larynx again examined, and foreign body seen in trachea. Patient sent to 18th Oto-Laryngological Centre for removal.

Removed by direct method. Denture was fixed to the anterior wall of trachea by means of a small hook, which was embedded in the wall.

The case was interesting from the lack of symptoms and the small amount of local reaction.

*J. K. Milne Dickie.*

**Digestion of the Œsophagus as a Cause of Post-operative Hæmatemesis.**

—J. Hogarth Pringle and J. H. Teacher. "Brit. Journ. of Surg.," vol. vi, No. 24, April, 1919.

Post-operative hæmatemesis usually sets in very early after the operation. The authors have had eighteen clinical cases, most of them occurring in abdominal conditions, but in this paper operations on the stomach are excluded. In one case the vomiting occurred before operation. The amount of blood vomited at one time is, as a rule, small. The vomit is very acid and scalds the throat. A series of fifteen cases seen in the *post-mortem* room showed numerous submucous hæmorrhages, with here and there erosions of the mucous membrane over them. The condition may vary from superficial erosions to complete perforation of the œsophagus. One case showed a fibrinous exudate on the pleura, covering the side of the œsophagus. That the condition occurs during life, and is not simply a *post-mortem* change, is shown by the presence of the submucous hæmorrhages. One patient also complained of retrosternal pain before death. In eleven out of the fifteen cases hæmatemesis had occurred. In six of the cases no operation had been performed, but all were cases of illness of a very severe infective or toxic nature. There was little or no digestion of the stomach in any of the cases. Probably the condition is set up by the escape of gastric juice into the œsophagus during a severe toxic illness, from which it cannot be expelled. The lower part of the œsophagus is more liable to be affected than the upper part. The authors' conclusions are:

"That digestion of the œsophagus may occur during life, and that as a result blood may be vomited.

"That this digestion may take place in any disease in which great lowering of vitality occurs.

"That *ante-mortem* digestion of the œsophagus is one cause of post-operative hæmatemesis."  
J. K. Milne Dickie.

### TRACHEA AND BRONCHI.

**Tooth impacted in a Secondary Bronchus of the Left Lung; Removal by Tracheotomy and Lower Bronchoscopy after Two Unsuccessful Attempts by Upper Bronchoscopy.—Sir StClair Thomson.**  
"Proceedings of the Royal Society of Medicine," July, 1918 (Section of Odontology), p. 100.

The case was that of a healthy girl, aged ten. Four weeks after the operation for extraction of teeth it was suspected, from physical signs in the chest, that there might be a foreign body in the lung.

There was found to be present, a month after the visit to the dentist, a slight wheezing which was audible at a distance of a foot or two from the chest. Rhonchi were heard on both sides, but chiefly over the left lung, with absence of air-entry towards the posterior border of the left axilla. There was a short cough.

An X-ray examination showed the tooth in the depths of the left lung.

On December 28, 1917, an attempt was made under chloroform anæsthesia to remove the foreign body by direct bronchoscopy. The tooth was seen tightly impacted in an externo-lateral, secondary branch of the left bronchus, at a depth of  $10\frac{1}{2}$  in. from the teeth, but all efforts to grasp it with various instruments failed.

After an hour and forty-five minutes the operation was abandoned. Eight days later chloroform was again given. Great difficulty was experienced in keeping the tooth well in view in the centre of the field of vision, and strong traction to the right had to be maintained on the handle of the instrument to direct its beak towards the left axilla. This caused the patient to collapse suddenly and artificial respiration was required to restore her. She had been under the anæsthetic for forty minutes.

Later an X-ray showed the tooth as before, or even deeper, with commencing opacity in the left lung. Abscess formation had evidently taken place and action could not be delayed.

On January 26, 1918, chloroform was again administered. Tracheotomy was then performed. Through the tracheotomy wound the operator was able to pass an outer 9 mm. Brünings' tube. The tube passed readily down on to the tooth at a distance of less than  $5\frac{1}{2}$  in. A pair of Killian's "bean forceps" was passed down to the tooth and was dilated to free the tooth and to get a good grasp. Following this procedure there was a gush of yellow fluid. The forceps was carefully closed and withdrawn with the tooth firmly grasped in it.

One or two drachms of yellow pus welled up into the left bronchus and were cautiously removed by sponging, with the head and thorax in the Trendelenburg position.

From the beginning of the tracheotomy to the removal of the tooth the time occupied was exactly twenty-nine minutes. There was no shock or collapse. The after-history was uneventful and recovery complete.

Archer Ryland.

### MISCELLANEOUS.

**Syphilis in the Blacks of Africa.**—J. N. Roy. "Rev. de Laryngol.," No. 11, 1919.

The writer concludes on various grounds that syphilis was primarily introduced into Africa from Asia. Northern African races have a milder form than the Central and South African races. The later syphilitised races suffer from a much more severe type, with frequent destruction of the palate and nasal septum.

*J. K. Milne Dickie.*

**A Case of Syndrome of the Foramen Lacerum Posterius.**—C. Bruzzone. "Arch. Ital. di Laringol.," Anno xxxviii, fasc. 3-4, 1919.

Soldier, aged forty-one, called to arms August, 1915. Was transferred to a supply company after he had been found unfit for service with Alpini. Since enlistment had lost 20 kgrm. in weight. Five years previously had difficulty in swallowing, especially of solids, after an attack of pneumonia; had also regurgitation through the nose at first. When seen swallowing had improved. Two months after onset of symptoms the voice changed and became hoarse. Patient had had periods of improvement. No cough. Examination: Appearance of emaciation. Face symmetrical, left side being smaller than right. Some interstitial keratitis, eyes otherwise normal. The left side of palate a little lower than the right side. On phonation the whole palate was pulled to the right. The left half of the posterior pharyngeal wall was seen to move like a curtain towards the right on phonation. The left half of pharynx hypoæsthetic. The left vocal cord in cadaveric position. Hypoæsthesia of vestibule of larynx. Pulse varied in frequency. Sterno-mastoid and trapezius muscles perfectly normal. No enlarged glands in the neck. No lesions of any other cranial nerves. Wassermann reaction negative. Nothing to note in rest of body.

From the study of the writings of Vernet, Lermoyez and others, the writer concludes that the tenth cranial nerve is purely sensory and that all the motor fibres are derived from the eleventh nerve. The innervation of the palate is most probably also from the eleventh through the pharyngeal branch of the vagus. The actual lesion in the foramen lacerum posterius was most probably a rickety exostosis or periostitis.

*J. K. Milne Dickie.*

**Syndrome of Posterior Cranial Nerves.**—G. Bilancioni. "Arch. Ital. di Laringol.," Anno xxxviii, fasc. 3-4, 1919.

The writer gives details of eight cases of wounds of the posterior cranial nerves of varying degree. One of these was an isolated lesion of the left superior sympathetic ganglion with characteristic symptoms, namely contraction of the left pupil, left palpebral fissure smaller than right, left eye more sunken than right (enophthalmos), hyperæmia of left conjunctiva, dilatation of vessels of left cheek, left side of forehead, and left side of pharynx.

*J. K. Milne Dickie.*

**Syndrome of Foramen Lacerum Posterius.**—Vernet. "Revue de Laryngologie," April 15, 1919.

Writer reports a case of paralysis of the right sixth, seventh, ninth, tenth and eleventh cranial nerves following injury to head as a result of being buried by a shell. The right ear and nose bled immediately after the injury.

*J. K. Milne Dickie.*