ABSTRACTS

NOSE AND ACCESSORY SINUSES

Cysts of the Floor of the Nose. GIGNOUX. (Revue de Laryngologie, February 1921.)

Gignoux reports three cases of cysts of the floor of the nose, there being a cyst on each side in one case. In reviewing the literature, he finds the first reference to these cysts in Zuckerkandl's Anatomy of the Nasal Fossæ, 1882. They are quite distinct from cysts of dental origin. One point of difference is that the fluid which fills them contains no cholesterine. Their site of origin is in front of the anterior end of the inferior turbinal, near to the junction of the skin and mucous membrane of the vestibule. As they increase in size, they push forward into the angle between the ala and the upper lip, and backward along the floor of the nose, under the mucous membrane. histology of the lining membrane is variously reported on by different In Gignoux's cases two or more layers of stratified epithelium were found, as was also the case in those of Brown-Kelly and Beck. Brüggemann and Kofler found cylindrical epithelium showing traces of ciliation. Others have found chalice cells.

The origin of these cysts is much disputed. Dunn and Brown-Kelly have demonstrated the presence of numerous mucous glands in the region in question. These glands, situated at the junction of the skin and mucous membrane, have very long excretory ducts, which are occasionally found to be dilated. On the other hand the restriction of the cysts to one narrow site of origin and their occasional occurrence on both sides, developing simultaneously, as in Gignoux's case, rather point to a developmental origin. This view is also supported to some extent by the histological findings. Neither a lining membrane, consisting of several layers of stratified epithelium, nor one of cylindrical ciliated epithelium would agree very well with the retention cyst theory. The difficulty with the developmental theory is to choose between the numerous anatomical structures which have been suggested as parents of the cysts. These include: - the nasopalatine canal of Stenson (Wyatt-Wingrave, Grünwald); Jacobsen's organ (Wyatt-Wingrave); the Maxillo-Intermaxillary fissure (Klestadt); the "Glandula nasalis lateralis" of Stenson (Grosser); and the terminal portion of the nasal duct (Brüggemann). Of these structures the nasopalatine canal and Jacobsen's organ appear to be too central to correspond with the localisation of the cysts. Between the claims of the remaining three Gignoux does not attempt to decide. G. WILKINSON.

Sarcoma of the Nasal Vestibule. GEORGE D. WOLF. (Medical Record, 29th January 1921.)

Compared with new growths in other situations, tumours of the nose have attracted little attention, and many cases of malignant

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disease are overlooked from want of pathological investigation. All specimens removed from the nose should be submitted to the pathologist, especially if epistaxis has been a feature of the case. The thorough eradication of benign growths is imperative, though it is not yet proved whether such growths undergo malignant degeneration. Finally, it is important to investigate all malignant growths of the cervical glands, so as to ascertain what proportion, if any, have their origin in the nasal chambers.

Douglas Guthrie.

Post-operative Obliteration of the Nasal Sinuses. P. CALICETI. (Arch. Ital. di Otol., xxxi., No. 4, 1920.)

Caliceti gives results of some experimental work on the frontal sinuses in dogs. There were two series of experiments. In the first group of five animals a tiny opening was made through the anterior wall of the frontal sinus on one side and a culture of live staphylococci was injected into the cavity. The infection was kept active for three months. After this period the sinus was opened through the anterior wall, the mucous membrane was removed, the cavity curetted, and painted with iodine. The wound was then closed. The other side was left untouched as a control. In the second group of three animals the same operation was carried out on healthy sinuses. The animals were killed at periods of from one to seven months later and examined.

In the first group of cases the operated sinus was in no instance obliterated. The cavity was found to be partly filled by new fibrous tissue and some spongy bone. Microscopic examination showed that the periosteum was considerably thickened and had proliferated into the cavity. In most of the cases the anterior wound in the bone had become closed by new bone formation within three months. In one case a cavity was found containing muco-pus and lined by granulations. Here some mucous membrane had been left accidentally. In the second group with healthy sinuses one case still showed a small cavity, the other two were completely obliterated by formation of new spongy bone.

Caliceti concludes that the septic process had exerted an inhibitory effect on the new bone formation.

J. K. MILNE DICKIE.

LARYNX

Laryngeal Function in Thyroid Cases. EDWARD STARR JUDD. (Annals of Surgery, March 1921.)

All the intrinsic muscles of the larynx are supplied by the recurrent laryngeal nerve which lies in a groove between the trachea and the œsophagus. It is intimately associated with the capsule of the thyroid gland, and lies between the latter and the tracheal and cricoid cartilages. Apart from toxæmia it is, therefore, exposed to pressure by the gland.

The resulting paralysis is by no means proportional to the thyroid enlargement, and in a few cases occurs on the opposite side to the enlargement. This fact, coupled with the existence of paralysis of one cord in patients with no thyroid enlargement, emphasises the importance of pre-operative laryngeal examinations in all thyroid cases. The degree of functional disturbance is determined by the rapidity of onset. If this be gradual, a simultaneously developed over-action of the healthy cord eliminates all functional disturbance. Total loss of the voice with enlargement of the thyroid is almost certainly due to either hysteria or carcinoma, and to the latter if no movement at all of the cords is discernible by the laryngoscope. In malignant disease we are concerned not with pressure phenomena but with actual invasion and destruction of the nerve.

As Guthrie has pointed out, temporary disturbance of the vocal and respiratory functions of the larynx frequently follows thyroidectomy, and may be due to backward displacement of the larynx, to a true myositis of the laryngeal muscles, or to trauma of the laryngeal nerve.

Experiments were carried out on a large number of dogs; the recurrent laryngeal nerve being injured by pinching, ligation, and stretching. By the first method movement of the cord returned in from thirty to sixty days, according to the distance of the trauma from the larynx. Ligature invariably caused complete and permanent paralysis. Stretching of the nerve did not always cause paralysis.

In only nine cases out of 25,000 thyroidectomies has the postoperative functional disturbance of the larvnx been permanent. In these the disturbance was almost entirely confined to the respiratory function of the larynx; the voice being unaffected. These patients had a bilateral abductor paralysis of gradual onset, dyspnœa appearing four to eight weeks after operation and gradually increasing. A similar condition, not uncommon in syphilitic and tabetic conditions, is occasionally observed apart from any thyroid abnormality, and has been attributed to toxic influences. In the author's cases the paralysis was confined to the posticus muscle, and there was no ankylosis of the joints. The possibility of a myositis of the posticus muscle remains, and the cases in which the condition arose were for the most part those in which the adenomas were retro-tracheal or retrolarvngeal in position. The author is unable to offer an explanation of the condition; no method of injuring either the superior or inferior laryngeal nerve in dogs produces the condition.

The Recurrent Laryngeal is a pure motor nerve from the vagus. It can be separated into two bundles, one, with much the larger number of terminations, to the adductors, and the other to the abductors. The inequality in the number of muscle endings may be an explanation of the greater vulnerability of the abductor bundle.

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The late and gradual onset of this condition suggests scar contraction around the nerve, but it is difficult to see how this can be symmetrical in action, especially in cases in which the operative manipulation has been confined entirely to the one side. A toxic factor is possible, but in the majority of cases the goitre was non-toxic, so that the toxæmia of hyper-thyroidism is eliminated. In several of the cases the margin of safety for respiration was so narrow that tracheotomy was necessary.

GILBERT CHUBB.

Laryngofissure for Carcinoma. NORVAL H. PIERCE, M.D. (Annals of Otology, September 1920.)

Laryngofissure should occupy a more prominent position among laryngologists in the surgery of the larynx than it does. The assumption of its proper position has been delayed by the advent of direct laryngoscopy.

Except in a very few exceptional cases, specimens for microscopical examination of suspected cases of carcinoma of the larynx should not be obtained by indirect laryngoscopy. The only method that competes with laryngofissure for securing diagnostic specimens is direct or suspension laryngoscopy. But this method should not be used for removal of the mass, except in the rarest cases where the growth is small and superficial.

The author makes a plea for laryngofissure as the procedure of preference in the surgical treatment of early cases of carcinoma of the lateral walls of the larynx.

He has had unfortunate experiences in cases where the tracheotomy has been done at the time of operation. Practically all his deaths have occurred in patients who have had a tracheotomy performed at the time of operation.

Now, the whole procedure is performed under local anæsthesia. The whole aspect of the operation has changed. There is no longer danger of blood getting down into the trachea or bronchi during the operation. The tracheal reflexes expel anything that goes down. In cases where the tumour is small, a preliminary tracheotomy should not be performed. All the cases the author operated on without a tube, where the larynx has been closed immediately, have recovered. We should use a tracheotomy tube only in cases where the denuded area is going to be large, in cases where we are going to remove part of the interarytenoid region, and in cases where we use radium.

Should the tracheotomy tube be placed in the trachea at the time of operation? The author believes not. The tube should be introduced at least eight days before the larynx is opened.

As regards opening the thyroid cartilage there is very little to be said. The author thinks that it is not always necessary to divide laterally the thyro-hyoid membrane.

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It is not necessary to pack the larynx after laryngo-fissure for carcinoma. In the old days, when we used general anæsthesia, the bleeding was very much greater and vomiting was to be feared, especially during the time the patient was unconscious. The patient being conscious, he can expel the secretion at any time, and we do not need to pack for hæmorrhage.

The author advises immediate closure of the larynx. He believes we should do so even in cases where the actual cautery is used, because he has observed cases in which the swelling, after considerable cauterisation of the larynx, was insignificant.

If radium is used then we must leave the larynx open. Deglutition is very much more painful and difficult in cases where the larynx remains open. It is not necessary to put stitches through the cartilage. As a rule the larynx closes very kindly. The best way of preventing infection is to close the larynx immediately.

ARCHER RYLAND.

Radiological Observations on the Ossification of the Anterior Margin of the Thyroid Cartilage and the Cricoid Cartilage. G. CERESOLE. (Arch. Ital. di Otol., xxxi., No. 2, 1920.)

The importance of this subject was brought home to the author by a case which had been diagnosed as a foreign body in the larynx through faulty interpretation of a radiogram. The foreign body in question was merely the partially ossified margin of the thyroid cartilage. As a result of this a series of investigations were carried out with the object of determining the age at which ossification takes place. In all, 3708 people were examined, whose ages varied from twenty to fifty-two years. The earliest instance of ossification of the anterior edge of the thyroid was at twenty-three years, and of the cricoid at thirty-five. The ossification of the thyroid begins on its anterior border either at the top or the bottom and spreads from there upwards or downwards. In the cricoid it commences as an oval area of opacity on the front part of the cartilage. The thyroid was found to be partially ossified in 100 per cent. of patients at forty-one, and the cricoid in 100 per cent. at fifty years of age. It was found that nearly all of the cases in which ossification commenced unusually early were subjects of some chronic disease, of which the most common were tuberculosis (non-laryngeal), syphilis, or arthritis.

J. K. MILNE DICKIE.

Cellulitis of the Para-Pharyngeal Tissues causing Laryngeal Œdema. Cornelius Godfrey Coakley. (The Laryngoscope, 1920, Vol. xxx., p. 65.)

Œdema of the ary-epiglottic folds and epiglottis is frequently seen accompanying the severer types of inflammation of the pharyngeal

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mucous membrane. Retro-pharyngeal abscesses, on the other hand, seldom cause such a degree of laryngeal œdema as to cause the surgeon much concern. A laryngeal cedema of moderate degree, usually unilateral, may be seen in quite a large proportion of cases of peritonsillar abscess. The larvngeal cedema is seen especially in cases in which there is a marked infiltration of the anterior or posterior pillars. If there be any spread of the infection along the lymphatics on the lateral wall of the neck, producing a cellulitis, or abscess under the deep fascia, an external operation is called for. Laryngeal ædema usually accompanies these cases. Coakley records a case of peritonsillar abscess on the right side. The abscess was opened, but only a drop or two of pus was found. Coakley found a hematoma in the peritonsillar tissues, and œdema of the ary-epiglottic folds. An induration appeared at the side of the neck below the angle of the jaw. Operation by general surgeon: novocain infiltration, incision parallel to and three-fourths of an inch below the inferior maxilla. After reaching the deep fascia a pair of long curved artery forceps was pushed in, but without finding any pus. The surgeon put one finger in the patient's mouth, down to the pyriform fossa, and directing the forceps through the wound towards this finger, at once evacuated a dram of foul discharge. Within twenty-four hours there was a marked subsidence of the œdema.

Abscesses in the pyriform and in the glosso-epiglottic fossæ are accompanied by considerable laryngeal ædema. Direct inspection may show a yellow area indicating the formation of pus. The pus should then be evacuated with a straight knife. It is poor technique to stab the ædematous tissue in the hope of relieving the symptoms. Coakley knows of two cases where within one hour after this procedure the patient had a severe hæmorrhage and died.

Extensive laryngeal œdema may accompany malignant disease of the hypo-pharynx. By examining the hypo-pharynx by the direct method the source of the œdema is readily discovered.

Coakley holds that in cases of Ludwig's angina there is usually a history of a sore throat, often an acute tonsillitis. Cases may be divided in two classes—(1) the erysipelatous type, which runs its course without any localised abscess formation; (2) abscess formation, either large or small, appears. Coakley records two cases associated with tonsillitis in which emergency tracheotomy was performed. Both patients, however, had apparently died before operation and artificial respiration was without avail. Coakley advocates external incision. Tracheotomy, even if done in time, does not give very brilliant results, as the infected material from the pharynx passes through the larynx around the tracheotomy tube into the lungs, producing a septic pneumonia, which is invariably fatal. In the second class there is

a definite pus collection in the region of the sub-maxillary or sublingual glands, or beneath the tongue anteriorly. There is an upward and backward displacement of the tongue. Most of these infections come from the floor of the mouth or from carious teeth. External incision into the abscess results in recovery.

J. S. Fraser.

PERORAL ENDOSCOPY.

A Case of Gunshot Wound in which the Bullet was removed by means of the Esophagoscope. G. N. BIGGS. (Lancet, 1921, Vol. i., p. 589.)

The bullet entered the right side of the face, passed through the right antrum, fractured the septum, penetrated the hard palate, missed the soft palate, entered the posterior pharyngeal wall an inch above the cricoid, and embedded itself in the muscles $1\frac{1}{2}$ inches below the cricoid exactly in the middle line.

As it lay in an abscess cavity, the author preferred to use the ososphagoscope rather than risk a deep dissection. By this means the sinus in the pharynx was enlarged, and, after a tedious operation, the bullet was removed. It slipped from the forceps, was swallowed, and passed, four days later, per rectum. The patient made an uninterrupted recovery.

MACLEOD YEARSLEY.

Case of Esophageal Obstruction in a Girl aged Four and a half Years.

REGINALD C. JEWESBURY. (Proc. R. S. M., Section for Study of Disease in Children, p. 22, March 1921.)

Child unable to swallow solids from birth but has had no difficulty with liquids.

X-ray with bismuth meal shows a large shadow at the lower end of the cesophagus. Œsophagoscopy showed a small circular opening about $\frac{1}{8}$ of an inch at site of obstruction.

This was dilated with bougies with benefit, and treatment is being continued by passage of mercury tubes.

G. B. Brand.

Foreign Body (Coin) in the Trachea. GAVEL and GIGNOUX. (Soc. des Sc. Méd. de Lyon, 13th April 1920.)

The coin, a 50-centime piece, had been in the trachea for three months. By radiography it was seen just above the bifurcation. After a futile attempt at removal by upper bronchoscopy, tracheotomy was performed and the coin was easily extracted, and the wound sutured. The secretion of mucopus, which had been copious, ceased within ten days.

Douglas Guthrie.

Miscellaneous

Cicatricial Web Stenosis of the Larynx and Trachea. HENRY LOWNDES LYNAH. (The Laryngoscope, 1920, Vol. xxx., p. 343.)

The author states that web stenosis is one of the most frequent causes of inability to permanently detubate and decannulate patients after diphtheria. Further, cicatricial webs frequently follow injuries to the larynx, endoscopic operations for laryngeal papilloma, and plastic operations on the larynx and trachea. The web may (1) involve the ventricular bands (after laryngo-fissure); (2) the vocal cords (papilloma cases); (3) the subglottic region (post-diphtheritic cases); or (4) the trachea (tracheal fistula cases). In some of the cases the halves of the larynx are apparently fused together, and, on the introduction of a small bougie, the cords can be gently separated and a small dark spot seen just below the cords—the imperforate subglottic cicatrix. As soon as the web is severed (in some instances with a small bougie) the patient utters a loud cry.

The treatment of cicatricial web stenosis is by endolaryngeal and retrograde bouginage, and by repeated applications of the galvano-cautery. If the stenosis is thick and imperforate, it may be severed with the knife, the cutting edge being turned in the anterior direction. If the web is thin and imperforate, gentle pressure with a small bougie will open it. As soon as the web is incised by the laryngeal knife or galvano-cautery, a small intubation tube or soft rubber laryngeal tube should be introduced to keep the edges from fusing. This is only necessary, however, when one is dealing with an imperforate web stenosis. The lumen has no tendency to close once bouginage has been started. Bouginage and galvano-cauterisation are performed once a week.

The same method of treatment has been employed in the treatment of tracheal stenosis. Six cases are reported.

J. S. Fraser.

MISCELLANEOUS

A Refinement in the Radical Operation for Trigeminal Neuralgia. CHARLES H. FRAZIER, M.D., Philadelphia, Penn., U.S.A. (Journ. Amer. Med. Assoc., Vol. lxxv., No. 2, 8th January 1921.)

In 1895 the mortality as recorded in Tiffany's tables was 22.5 per cent., while in 1909, in a series of 200 cases which the author collected from four surgeons of large experience, the death rate was only 3.5 per cent. In Frazier's last 157 cases, only one death occurred, and that in a patient who succumbed to apoplexy during the convalescent stage. The operation may therefore be considered almost free from risk, and complete relief from pain may be expected

when the sensory root operation is carried out rather than excision of the Gasserian ganglion.

In the past the motor root was often sacrificed because the surgeon was afraid he might be leaving a fasciculus of the sensory root with all its unfortunate possibilities. It was suggested to Frazier by Dr C. C. Coleman, that an electrode might be of assistance in the identification of the motor root. By preserving this root, symmetry of the face is conserved, as there is no atrophy of the temporal muscle: there is no deviation of the jaw, as the pterygoid muscles are intact and there is no interference with mastication.

PERRY GOLDSMITH.

The Rôle of Deep Alcohol Injections in the Treatment of Trigeminal Neuralgia. HARVEY CUSHING. (Journ. Amer. Med. Assoc., 14th August 1920.)

The author discusses the advantages and disadvantages of deep alcohol injections. He points out that injections of the trunks of the trigeminal nerve are not without danger. He has seen numerous cases where very undesirable results had followed, such as oculomotor paralysis, locking of the jaw from infiltration and subsequent fibrosis of the pterygoid muscles, paralysis of the motor branch of the fifth, facial paralysis, and, worst of all, labyrinthine symptoms from accidental injection into the middle ear. The Eustachian tube is only a few millimetres from the trunk of the mandibular nerve, and hence it is easy to strike it by accident. He deplores the intranasal injection of Meckel's ganglion, since he has seen sloughing of the nasal bones in consequence. He is of opinion that the intranasal method is more dangerous than the extranasal method, which is fairly satisfactory. Injection of the Gasserian ganglion itself should never be attempted, as it is impossible to limit the injection, and spreading may occur to neighbouring structures in the posterior fossa. He himself had one case in which the injection accidentally ran up the sheath of the nerve and produced complete paralysis of the So much for the bad effects of alcohol injections. whole trigeminal. In favour of alcohol injections it is to be noted that a successful injection of the nerve trunk gives complete relief for a period of nine months on the average. He concludes that alcohol injections are the method of choice in all cases where the symptoms are limited to one or two divisions. Where three divisions are involved avulsion of the sensory root is recommended. "With such perfect and permanent results as may be secured to-day by a trigeminal sensory root avulsion, the prolonged and repeated use of injections in refractory cases which involve more than one division should be deplored."

J. K. MILNE DICKIE.

Miscellaneous

Paralysis of Five Cranial Nerves, due to Aneurysmal Dilatation of the Sigmoid Sinus and Jugular Bulb. MOLINIÉ, Marseilles. (Revue de Laryngologie, February 1921.)

The following is a brief summary of this remarkable case. Patient, a peasant woman of 64. Discharge from the left ear since childhood. Polypus removed when 30 years of age: much hæmorrhage. Seen by reporter in 1898, who noted feetid discharge, granulations and cholesteatoma in left ear. Operation. Exposure of tympanum and antrum. Curettage of these cavities started a free hæmorrhage, which prevented the operation being completed. Hæmorrhage stopped by packing. Radical operation again attempted in 1905, but had again to be abandoned on account of bleeding. A year later complete paralysis of the 7th nerve supervened. The patient was kept under observation during the next fifteen years. The auricular cavity gradually filled up with a soft elastic reddish swelling, which eventually came to protrude both at the meatus and through the retroauricular wound. The tumour did not pulsate visibly, but on compressing the sac with the finger, pulsation could be felt, and the pulsations could be seen as the cavity refilled. In July 1920, a sudden hæmorrhage took place. Shortly after a widespread paralysis of cranial nerves appeared, causing dysphagia, sensation of foreign body in the throat, alteration of the voice and difficulty in raising the left arm and shoulder.

Examination showed complete paralysis of the 7th and 8th nerves; paralysis of the left side of pharynx and loss of taste on the left side of the base of the tongue (9th nerve); complete paralysis of the left side of the palate and left vocal cord (inner division of 11th) and paralysis of sterno-mastoid (partial) and trapezius (total) external branch of 11th. Disturbance of the pneumogastric proper was inferred from the presence of palpitation and attacks of coughing. Thus the 7th, 8th, 9th, 10th, and 11th cranial nerves were paralysed; the 12th was not affected.

Molinié has only been able to find record of one other case of aneurysm of the lateral sinus, that recorded by Collet, Lamoin, and Patel, of a soldier whose sinus was wounded by a piece of shrapnel. The case was operated upon successfully, the jugular being tied in the neck and the sinus obliterated by pressure above the aneurysm. In the case here recorded operation was refused.

In summing up, the writer suggests that the paralysis of the 7th and 8th nerves was due to the erosion of the antrum and tympanum by cholesteatoma. The paralysis of the 9th, 10th, and 11th appeared suddenly and simultaneously many years later and was evidently due to pressure by the aneurysm on the nerve trunks within the jugular foramen. He disclaims any wish to add to the list of "Syndromes," which he thinks is already too long, and suggests that in future

paralysis of groups of cranial nerves should be classified entirely according to the nerves involved and not according to the symptoms.

G. WILKINSON.

Stigmata of Predisposition to Bone and Joint Tubercle. W. C. RIVERS. (British Journal of Children's Diseases, Nos. 200-204, Vol. xvii., July-December 1920.)

The abstractor's remarks are confined to that part of River's very interesting article, which has a laryngological interest. The author complains that the subject has not been sufficiently appreciated by laryngologists as a body in its relationship to their work, but he readily acknowledges the valuable contributions to this subject made by such a noted laryngologist as Moure of Bordeaux.

The deductions arrived at are the outcome of special examination of a large number of cases of surgical tuberculosis and their comparison with other or control cases not so afflicted.

The two great nasal affections associated with surgical tuberculosis are ozæna and catarrhal rhinitis. The latter-day view of the majority of observers is that atrophic rhinitis is the cause of the tuberculosis found along with it.

The association of catarrhal rhinitis with scrosulosis is so familiar that it is often overlooked and undescribed as a symptom of the latter condition. The affection is dependent upon simple micro-organisms and is analogous to the other septic infections common in surgical tuberculosis. Moure has attempted to combine the ozenic and catarrhal condition under the title of coryza pseudo-atrophique, a nontubercular hereditary affection peculiar to strumous subjects. This tallies with Bosworth's hypothesis that ozena takes its origin from the chronic purulent rhinitis of childhood.

In the cases from which the author's statistics are taken, endonasal atrophy short of ozæna was commoner in the definitely tuberculous children. In all cases the affection was more than twice as common in females. Nasal obstruction was markedly predominant in the tuberculous children. In this case the male sex predominated, a fact which the author attributes to the relative frequency of the leptorrhinic conformation in this sex. Non-tuberculous abnormalities, neither atrophic nor obstructive, occurred with marked preponderance in the tuberculous children.

The author's statistics, derived from a conclusively large number of cases, show that in bone and joint tubercle non-tuberculous nasal abnormality is more than three times as common as in the general population. From the practical standpoint it is most important to remember that a thin whitish-yellow crusting in the nasal fossæ, especially on the septum, was ten times more frequently present in the tuberculous children than in the controls.

Reviews of Books

The respiratory impairment which results either from absence of the normal Schneiderian secretion or from obstruction, predisposes the individual to infection as a result of which external noxæ find it easier to gain an entry either by the respiratory, the lympho-hæmic or the alimentary systems.

Amongst his other conclusions the author gives it as his opinion that the noting of the stigmata of tuberculous predisposition should form part of the routine work of school medical inspection. The only special training needed would be in rhinology.

JAMES B. HORGAN.

REVIEWS OF BOOKS

Medical Treatment in Oto-Rhino-Laryngology: Précis de Thérapeutique Medicale Oto Rhino Laryngologique. Dr G. DE PARREL, Instit. Nat. des Sourds-Muets de Paris, &c., pp. 671+x. A. Maloine et Fils: Paris, 1921.

In this volume of nearly 700 pages, the author deals very completely with his subject, non-surgical treatment. In the half of the book devoted to drug treatment, a short note on ætiology and pathology and sometimes on diagnosis, precedes the account of therapeutic measures. A mass of information is offered on the subject of treatment by drugs and vaccines. Prescriptions are fully set out and the methods of application carefully enunciated. In each case, general, dietetic, and hygienic measures are given. The subject of vaccine treatment is separately considered in a special chapter. Although surgical procedures are considered entirely outside the scope of this work—except myringotomy and ossiculectomy, which are described—pre- and post-operative measures and complications are fully dealt with. In this connection one cannot entirely agree with the wisdom of mopping the nasopharynx with peroxide of hydrogen immediately after curetting adenoids.

The remainder of the book is devoted to physical measures. Electrotherapy, including cauterisation and ionisation, radiotherapy, climatology, and balneology are considered in turn. The treatment of deaf-mutism, voice production, and lip reading receive special attention. Indeed, this part of the book is the most interesting and the most valuable. References are facilitated by a very complete index, a small pharmacopæia, and a table of authors.

It is unfortunate that the author's ambition to render his book complete has carried him beyond this. The work can obviously appeal to few outside the specialty, and the specialist is not in need of much of the information. More than a tenth of the book is devoted to a pharmacology; and such matter as the theory of anaphylaxis, of