ABSTRACTS

NOSE AND ACCESSORY SINUSES.

Nasal Sinus Disease in Infants and Young Children. L. W. DEAN and MARGARET ARMSTRONG. (*Annals of Otology*, Vol. xxviii., No. 2, June 1919.)

A large number of children have been referred to Dean by pædiatricians in the effort to find a focus of infection in cases of arthritis and various other conditions. In all cases of infective arthritis in infants and young children the source of infection has been in the upper respiratory tract. The diagnosis of sinus disease is extremely difficult. The most common symptom appears to be sneezing, especially in infants. Discharge from the nose is not particularly frequent. The naso-pharyngoscope has been found very useful. It is used principally when the child is under an anæsthetic just before removal of tonsils and adenoids. An X-ray picture is necessary before exploration of the sinuses in order to ascertain whether the sinus is present or not. The X-ray is, however, unsatisfactory in the diagnosis of disease of the sinuses. Many cases of sinus disease clear up after removal of tonsils and adenoids. Out of 145 cases of tonsils and adenoids 65 had sinusitis. In diagnosis the macroscopic appearances of the wash-out are not considered sufficient, but cultures are made. Under the strictest asepsis, a trocar is introduced into the antra. A long fine needle is put in through the cannula and a small quantity of sterile saline is injected and withdrawn. Cultures and inoculations are made from this fluid.

Of 98 cases investigated in this way, there were pathological organisms present in 35 cases, or 51 antra. In 45 instances a staphylococcus was present, in 13 a pneumococcus, in 8 a gram-negative bacillus, in 7 a diphtheroid bacillus, in 7 micrococcus catarrhalis, in 5 S. hæmolyticus, in 1 S. viridans, and in 2 a Friedländer bacillus. In a group of 12 arthritis cases which did not clear up after removal of tonsils and adenoids, 9 had definite pus in the antra. In 11 of them a hæmolytic streptococcus was found. When rabbits were inoculated with these strains, the animals that did not die of acute toxæmia developed arthritis. J. K. MILNE DICKIE.

Pneumo-Sinus Frontalis Dilatans. C. E. BENJAMINS (Utrecht). (*Acta Oto-laryngologica*, Vol. i., Fasc. 2 and 3.)

The writer describes a case of this very rare condition in which the cavity of the sinus becomes gradually expanded by pushing

out of its bony walls, and which differs essentially from pneumatocœle in the absence of air under the soft parts covering the sinus, and in the fact that the bony walls are always intact. The most probable cause of the condition is that in some manner there is formed in the naso-frontal duct a valve of such a nature that it permits the entry of air into the sinus during forced expiratory efforts (sneezing, blowing the nose, etc.), but prevents its exit. In the writer's case a small polypus was present in the duct and may have acted in this way. Only 5 other cases are to be found in the literature, 3 affecting the frontal sinus, 1 the maxillary, and 1 the ethmoidal cells. The treatment consists simply in establishing a large communication with the nose so as to do away with the valvular mechanism. THOMAS GUTHRIE.

Cerebral Abscess of Frontal Sinus Origin. F. LEEGAARD. (*Laryngoscope*, 1920, Vol. xxv., p. 38.)

The author has had four cases of this complication of frontal sinusitis and finds that the diagnosis is a matter of great difficulty, as there are no localising symptoms. Orbital complications were present in two of the four cases of frontal lobe abscess. J. S. FRASER.

Brain Abscess in Acute Infection of Nasal Accessory Sinuses. L. W. JESSAMAN. (*The Laryngoscope*, 1920, Vol. xxx., p. 147.)

Jessaman records a case which occurred in one of the British hospitals in France. Patient admitted with influenza and treated for two weeks, then referred to the writer because of persistent pain in the left frontal region. On examination Jessaman found tenderness over left frontal sinus and thick pus beneath the middle turbinate. Operation under local anæsthesia. Part of the left middle turbinate removed and ethmoid cells exenterated. On the second day the temperature rose to 104° and the patient complained of severe pain in the legs. On the fifth day he had some trouble in talking. On the eighth morning there was motor aphasia, marked paresis of right arm and leg. Second operation: Under general anæsthesia the frontal sinus was opened and found filled with pus. Posterior wall removed. The brain was explored and a small amount of pus evacuated. The following day the paresis was less but the aphasia was unchanged. Gordon Holmes now diagnosed an abscess in the white matter pressing on the cortical centres, and he advised further exploration. Third operation: A very large sub-dural abscess was found. Pus also was discharging from the brain. Paralysis of right arm and leg became complete. Patient died six days later.

Autopsy.—Entire surface of left hemisphere covered with thick pus. Dura over the ethmoid much thickened. No pus was found

between the dura and the bone. Ethmoid necrotic. Jessaman states that the autopsy findings showed the real point of invasion to have been from the ethmoid. J. S. FRASER.

LARYNX.

Complete Extirpation of the Larynx in Carcinoma. T. HOSHINO. (*Annals of Otology*, Vol. xxviii., 2nd June 1919.)

The author has had under his care 41 cases of laryngeal cancer, in 16 of which complete extirpation of the larynx was carried out. The operations were done under local anæsthesia, ½ per cent. novocain being the drug employed. The cervical nerves were blocked behind the sterno-mastoid on each side and both superior laryngeal nerves were also blocked. The pharynx was painted with 10 per cent. cocaine. This procedure was found completely satisfactory. A median incision with two cross cuts is preferred. It is recommended that the trachea be brought to the surface through a separate incision. The author lays great stress on careful suturing of the pharynx. He uses two rows of sutures of the Lembert type, which do not completely penetrate the mucous membrane. As regards after-treatment, it is important to wash out the naso-pharynx frequently, as the patient is unable to clear it for himself. With the help of an artificial larynx a fair voice can be obtained, but the author has found that the patients can whisper easily with the help of a simple rubber tube from the trachea held in the angle of the mouth. Most of the patients found this more satisfactory than using the artificial larynx. Of the 16 cases, 8 have shown recurrences, and 8 have remained free. In all the cases the disease was fairly well advanced and the majority of the growths were on the false cords. J. K. MILNE DICKIE.

Bronchitis due to Empyema of the Maxillary Antrum. A. E. MILLS. (*Medical Journal of Australia*, 22nd May 1920, Vol. i., 7th year, No. 21, p. 487.)

Mills, Professor of Medicine, Sydney University, in a lecture to his sudents presents the history of three cases of bronchitis, lasting since infancy in three subjects, aged six, nine, and fourteen years, in all of whom there was a muco-purulent discharge from the nose and nasopharynx for which the advice of a rhinologist was sought. Mills found in each case both maxillary antra full of pus. The symptom common to all was a short, loose, irritating, ineffectual cough, giving the impression that phlegm was constantly present in the throat, and was only partially dislodged.

Mills believes that the bronchitis was primary in these cases, and as it persisted, the antra became infected in common with other parts of the respiratory tract. Treatment of such bronchitis must begin with drainage of the antra.

The prognosis is hopeful when this source of infection is discovered and removed. A. J. BRADY.

PHARYNX AND NASOPHARYNX.

A Note on the Clinical Diagnosis of Diphtheria and other Exudations in the Throat. H. DRINKWATER. (*Lancet*, 1920, Vol. i., p. 1160.)

A considerable percentage of cases certified as diphtheria and sent to the Fever Hospital, of which the writer had charge, have been cases of follicular tonsillitis, influenza, and simple catarrh. Other suspicious cases have also been treated for several days as "quinsy." The author suggests that if certain visible characteristics be carefully observed, diagnosis by ocular inspection can be made at once. His own naked-eye diagnoses have, in every case, been confirmed by subsequent bacteriological examination, except in the case of Vincent's angina. The characteristics of a diphtheria patch are:—

(1) It is raised above the level of the mucous membrane.
(2) The edges are sharply defined all round.
(3) The colour varies greatly; white and glistening, bluish, yellow, or spotted, with black or red. It is rarely like "wet-wash-leather."

The paper is illustrated by eighteen sketches.

MACLEOD YEARSLEY.

The Treatment of Diphtheria Carriers with Detoxicated Klebs-Löffler Vaccine. A. R. FRASER and A. G. B. DUNCAN. (*Lancet*, 1920, Vol. ii., p. 994.)

Those authors conclude that exactly what determinates the chronicity of carriers is not yet clear, and we are still unaware of the process whereby the convalescent with delayed resolution becomes free. The cure of carriers is the most hopeful form of prophylaxis. Vaccine is the method of most promising efficiency in dealing with contacts, convalescents, and carriers. Antitoxin protects only from the toxin produced by the living Klebs-Löffler bacilli in the tissues. The vaccine prevents the growth and life of the bacilli. In diphtheria both vaccine and antitoxin should be given. The advantage of dosage allowed by employing detoxicated vaccine must not be overlooked.

MACLEOD YEARSLEY.

Abstracts

Tonsillectomy as a means of Treatment in Diphtheria Carriers. GRAHAM BROWN and E. KENT-HUGHES. (*Medical Journal of Australia*, 17th April 1920.)

The writers begin by stating that diphtheria is very prevalent in Brisbane, and that the number of children who are carriers is large. One school of 800 scholars gave a positive result in 12 per cent. This number includes diphtheria cases of so-called non-virulent type.

The health regulations of the State of Queensland require three consecutive negative swabbings, at not less than forty-eight hours intervals, before the patient can be discharged.

The writers state that previous to their practice of performing the operations of tonsillectomy and adenoidectomy, patients have remained in the hospital for 190 days before they could be declared free of diphtheric germs, and some have returned with relapses. During the year 1919 over 100 cases were operated on—"Tonsillectomy, Sluder's method, Heath's tonsillotome." Nasopharynx carefully cleared of all vegetations. The average time after operation until three negative swabbings were obtained was ten days.

When, as was shown by examination of removed tonsils, there are nests of diphtheria bacilli at the bottom of crypts close to the capsule, it was evident that attempts at surface disinfection would have been of little avail. Their experience coincides with that of several other observers quoted in the paper. A. J. BRADY.

The Problem of the "Positive Throat" in Diphtheria Convalescents. J. L. BROWNLIE. (*Lancet*, 1920, Vol. i., p. 706.)

The paper discusses fifty consecutive cases which were treated by vaccine. The writer considers that local antiseptic applications are unsatisfactory in the treatment of the carrier or the positive throat. Diphtheria vaccine produces degeneracy and consequent alteration in the form of the cultured organism, followed by its complete disappearance from the locality invaded. Diphtheria carriers were, in the past, subjected to hospital residence for weeks or even months, but may now be effectively treated by vaccine. The economic advantages of the treatment are obvious. MACLEOD YEARSLEY.

PERORAL ENDOSCOPY.

Arachidic Bronchitis. CHEVALIER JACKSON and W. H. SPENCER. (*Journ. Amer. Med. Assoc.*, Vol. lxxiii., No. 9, 30th August 1919.)

The authors give an analysis of 16 cases in which portions of peanut kernel were removed from the bronchi. The term "arachidic" is justified by the fact that the aspiration of a peanut (*arachis*) kernel in children causes a definite syndrome, due to some inherent property

in the peanut rendering it far more irritating than any other form of foreign body in the bronchus. The pathological condition consists of an œdematous purulent tracheo-bronchitis, which, if not fatal, causes pulmonary abscess. The condition may have to be differentiated from laryngo-tracheal diphtheria. Prognosis is grave if the foreign body is not removed. Young children are apt to succumb quickly from exhaustion and toxæmia. PERRY GOLDSMITH.

The Protection of the Throat during Mouth Operations. D. O. HENSON. (*Dental Cosmos*, May 1920.)

In view of the serious consequences which may arise, should some small object, such as a crown, an inlay or a branch, slip from the dentist's fingers, it is recommended that a piece of three-inch bandage be laid on the back part of the tongue, with the ends projecting from each side of the mouth. This simple safeguard is apt to be neglected in dental practice. DOUGLAS GUTHRIE.

Foreign Bodies of Dental Origin in a Bronchus; Pulmonary Complication. C. A. HEDBLOM. (*Annals of Surgery*, May 1920.)

In the last four years the author has had seven cases of pulmonary suppuration following dental operations or dental trauma. In two cases the tooth was spontaneously expelled; in one it was discharged through a thoracotomy wound; in one it was found post-mortem; in the rest no foreign body was found. The author has collected 45 other cases from the literature, and he gives an analysis of the total of 52. A tooth was present in the bronchus in 37, and an artificial tooth in 4 cases. The foreign body was present in the right bronchus in 21 instances, in the left in 19, and in both in one case. In 26 cases aspiration of the foreign body had occurred during general anæsthesia, in 12 under nitrous oxide, in 11 under ether, in 3 under chloroform, and in 4 cases where there was no anæsthesia. In 16 cases there was no serious pulmonary complication, while in 36 suppuration occurred. In the 36 complicated cases there was a latent symptomless period in 15. The duration of the latent period was of varying periods up to seven months. In 29 cases cough was the predominant symptom, hæmorrhage in 8, and pain in the chest in 11. Fourteen of the 36 cases with complications died. Sixteen completely recovered. Of the 14 cases in which the foreign body was expelled, 7 recovered, while 3 died. In all the fatal cases the foreign body had been present for a long period. With regard to the likelihood of spontaneous expulsion the following figures may be of interest. The foreign body was expelled in only 3 out of 13 cases before the onset of suppuration, and in 13 out of 33 after the onset of suppuration. J. K. MILNE DICKIE.

Abstracts

ŒSOPHAGUS AND BRONCHI.

Foreign Bodies in the Air and Upper Food-Passages in Pre-Endoscopic Days. HUBERT ARROWSMITH. (*The Laryngoscope*, November 1919, Vol. xxix., p. 633.)

The writer gives a short historical account of early methods. He notes that in 1858 Bennett, Professor of Clinical Medicine in Edinburgh, described the introduction of a catheter into the bronchi of seven patients, in one of whom he "injected the lung" eleven times, starting with 2 drm. of a (30 gr. to the ounce) solution of silver nitrate and reaching ½ oz. of a 40-gr. solution; operator, treatment and patient all heroic! This was the precursor of our present methods of endoscopic medication. Arrowsmith has culled from a large number of reports over 160 cases. Foreign bodies in the air-passages numbered 137; in the œsophagus there were 23 and 2 lye strictures; in the pharynx, 4. The intruding material was as follows: Fruit-seeds and pips, 23; beans and grains, 34; nut-shells, 13; needles and pins, 12; buttons, 4; coins, 9; bones, 14; teeth, 2; tooth-plates, 4; thimbles, 2; fish-hook, 1; broken tracheotomy tube, 1.

There were only 22 deaths in 160 foreign-body cases. Treatment had been attempted in 6 patients unsuccessfully. Our predecessors obtained 19 autopsies in these 22 cases—a far larger proportion than we are able to secure. In 41 instances the foreign body was spontaneously coughed up. In an interesting series of tracheotomies the foreign body was expelled through the wound or displaced into the mouth, swallowed and passed by the bowel. Immediate expulsion, 34; delayed expulsion, 18. There were 48 successfully planned extractions from the pharynx, larynx, treachea, bronchi, and œsophagus.

Arrowsmith admits that in the light of our present knowledge this series is not a fair presentation of the clinical history of foreign bodies, even in those times. J. S. FRASER.

Syphilitic Stricture of the Trachea. CADE & BRETTE. (*Soc. des sc. med. de Lyons*, 2nd December 1919.)

A man, aged 37, who contracted syphilis at the age of 18, suffered from shortness of breath, which was steadily becoming worse. His voice was unaltered. Moist râles heard over both lungs. There were signs of old iritis of left eye, a hard swelling of one testicle, and a perforation of the soft palate. No tubercle bacilli in sputum. The larynx appeared normal. The patient died of asphyxia a week after admission to hospital. Post-mortem report—lungs broncho-pneumonic, larynx healthy. In the trachea, 4 c.m. before the cricoid, was a narrow stricture of the calibre of a goose quill. Below the stricture, in the trachea and bronchi, were a number of inflammatory patches, some of them ulcerated. DOUGLAS GUTHRIE.