

The Ear

soon as we knew not only the pathogenesis but also the real nature of otosclerosis. Moreover the notions gained by these investigations would prevent irrational methods of treatment (viz. pneumomassage, etc.).

To Dr Wright he (Professor Nager) observed that the high percentage of otosclerosis among his ear patients was undoubtedly due to the fact that they belonged to his private practice, whereas this disease was not so frequent in the general out-door department. In the same way the big difference between Bezold's (7 to 8 per cent.) and Shambaugh's (30 per cent.) private practice might be explained.

To Dr Douglas Guthrie's remarks about the effects of re-education by sound massage, he (the speaker) confessed that he never saw any distinct effect. A temporary improvement of hearing without any changes in tuning-fork tests could not be considered as due to this method, because we all knew that with or without any treatment the hearing of these patients might change. He remembered cases going and coming from the celebrated Coué with, in their impression, a very marked improvement in hearing. But the tuning-fork examination proved to be unchanged. As to the treatment with radium and X-rays, he (the speaker) expected that, with a special form of application, it would be possible to have an effect on the unripe bony tissue, but till now the results had not been favourable as to hearing, though rather better as to noises.

To Dr O'Malley he (the speaker) must say that in otosclerosis there were no marked alterations in the endo- or perilymphatic fluid, at least by the coloration, whereas every inflammatory change of the liquor would be easily detected.

To Sir William Milligan's question about the bone marrow, he pointed out that to this day the histological aspect of this tissue did not look like a distinct inflammatory process. There was a certain analogy with osteitis fibrosa (Paget), as Mr Jenkins and Otto Mayer (Vienna) could show. This bone disease was to-day considered as a sort of osteomyelitis (Looser), but otosclerosis did not look like that. He (the speaker) hoped that, as Dr J. S. Fraser had pointed out, with universal research in all the laboratories, the otosclerotic problem would be solved in the next few years.

ABSTRACTS

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Herpes Zoster Oticus: A Case with Involvement of the Fifth, Seventh, Eighth and Ninth Cranial Nerves, and a Complete Vestibular Examination. Dr F. L. DENNIS. (*Laryngoscope*, Vol. xxxv., No. 9, p. 665.)

There is apparently no doubt that herpes zoster is an infectious disease, although the specific causative agent has not been identified. Experiments conducted by Teague, Goodpasture, and Lipschitz indicate

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that the infectious agents of encephalitis, herpes simplex, and herpes zoster are closely allied.

The characteristic pathological changes in herpes zoster are swelling and œdema with congestion and small hæmorrhages throughout the affected ganglia, degeneration of some of the nerve cells, and degeneration of the fibres in the posterior root central to the ganglion.

Herpes zoster oticus is a primary involvement of the geniculate ganglion of the seventh nerve; from here the inflammation frequently spreads to adjacent ganglia: Scarpa's and Corti's ganglia of the eighth, the petrous ganglion of the ninth, and the jugular ganglion of the tenth cranial nerves. A description of the sensory nerve supply of the auricle is quoted from Hunt and Cushing. The chief symptoms are as follows:

Most cases suffer from malaise, headache, fever, pain in and around the ear for a few days before the eruption. Nausea, vomiting and sore throat may be present. If the ganglia of the eighth nerve are involved, there will be deafness, vertigo, nystagmus and loss of equilibrium. The eruption is vesicular and confined to definite areas. Paralysis of the facial nerve is complete in all three divisions and accompanies or follows the eruption. Taste on the affected side of the tongue is abolished. If the ninth and tenth nerves are involved, vesicles appear in the pharynx and larynx, and there may be recurrent laryngeal paralysis. If Scarpa's ganglion be involved, there is loss of excitability of the vestibular apparatus. If there is an eruption on the drumhead with pain and tenderness over the mastoid, and fever, the condition may be confused with otitis media. Recovery is the rule; often it is prolonged and occasionally deafness and facial paralysis may persist.

The author describes in detail one case of herpes zoster oticus with a full report of a complete vestibular examination. The patient had to be supported when walking because of vertigo and staggering. There was complete right-sided facial paralysis and complete deafness for tuning-forks on the right side. The left ear had normal hearing. There was spontaneous nystagmus in all directions, except when looking upward; there was a "mixed nystagmus which is vertical upwards, combined with diagonal upwards to the left"; pointing was normal. He fell backwards, and this altered with change in the position of the head. Turning to the right gave an after-nystagmus of 20 seconds, and a vertigo lasting 8 seconds. Correct pastpointing was present. Turning to the left produced no nystagmus, no pastpointing and vertigo for 2 seconds. Cold syringing, right ear; no reaction after five minutes, no vertigo, no pastpointing: with head back, a quick, fine vertical nystagmus upward; no vertigo, no pastpointing. Paracentesis revealed a dry tympanum.

Eleven months after the attack, the patient stated he was not doing

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well; his eyes were all right and the face "had straightened up," but he was still deaf and had attacks of vertigo and staggering with tinnitus.

It is possible that, apart from the typical attack of herpes zoster oticus, there may be some other coincident disease.

There is a complete bibliography.

ANDREW CAMPBELL.

The Gradenigo Syndrome with Report of Three Cases. Dr W. H. SEARS. (*Laryngoscope*, Vol. xxxvii., No. 1, p. 32.)

A literal translation of Gradenigo's interpretation of the syndrome is incorporated, and extracts from American literature are given. There is still doubt regarding the pathology. Very few cases have been examined post-mortem and these do not tend to support the local inflammatory theory; while toxic neuritis is usually bilateral, in these cases the paralysis of the abducens is unilateral and on the same side as the otitis.

Three cases are reported in full which illustrate three different phases of otogenic disease and sixth nerve paralysis.

Case 1 complained of severe pain affecting the left side of the head, of four days' duration. There had been no otalgia and the patient was unaware of deafness, though this was present. The drumhead was bulging and free purulent discharge followed paracentesis. Owing to recurrence of pain, two further incisions in the drumhead were necessary. Twenty-five days after the onset of pain, diplopia developed while pain and discharge had almost ceased. Vertigo, due to muscle paralysis, was present. X-ray showed a pneumatic mastoid of extensive development. An added complication occurring simultaneously with the paralysis was a polyarthritis. In two months from the onset, no diplopia could be elicited.

Case 2 was a boy of sixteen who developed an acute otitis media with a posterior perforation. In a week's time the discharge had almost ceased, but a complete sixth nerve paralysis associated with severe periorbital and suboccipital neuralgia developed. A mastoid operation was performed and little pus found. Twelve days later, fulminating meningitis carried the patient off in twenty-six hours. Autopsy was refused. The culture from the ear showed *staphylococcus albus*.

Case 3 was an infant aged seventeen months suffering from bilateral acute mastoiditis. The mother noticed that one eye turned in, simultaneously with the onset of pain and discharge. X-ray showed no appreciable difference between the two mastoids. The left external rectus was weak. A simple mastoid operation was done on both sides. Pus was found on both sides, while the zygomatic cells were

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involved on the right side. A streptococcus was grown from this side, the left side showing no growth. A fortnight after operation the weakness of the left external rectus had disappeared.

There is a complete bibliography. ANDREW CAMPBELL.

[In connection with this and the previous abstract, the reader's attention is drawn to the papers of Dr C. P. Symonds and Dr J. P. Stewart in the *Journal of Laryngology and Otology*, vol. xlii., pp. 656, 665 (1927), and to the two cases of Gradenigo's syndrome on pp. 42, 43 (1928).—EDS.]

Suppurative Labyrinthitis: Serous Meningitis: Recovery. Dr R. T. ATKINS. (*Laryngoscope*, Vol. xxxvii., No. 5, p. 366.)

A female aged twenty years, gave a history of meningitis at the age of five months and measles with bilateral otitis media at the age of three years. A simple mastoid operation was done on the right side at the age of seventeen. There had been intermittent discharge on the left side for the past year. Four days prior to admission, pain developed in the left ear, followed by fever and vertigo. The day before there was nausea and vomiting. On admission the middle ear was filled with granulations and the left ear was active on functional examination, while the whispered voice was heard. A radical mastoid operation was immediately performed. There was a sclerotic mastoid and cholesteatoma in the antrum; the dura mater was found exposed above the antrum and a fistula existed in the external semicircular canal.

Following operation there was dizziness, nausea and vomiting, and the temperature remained elevated. On the second day after operation, rigidity of the neck and slight rotatory nystagmus to both sides were noted. Cerebrospinal fluid was under pressure and slightly cloudy and contained 180 cells to the c.mm. Cultures were negative. Hearing was still present. Four days after operation, the optic discs were slightly blurred; nystagmus was present to the sound side only and hearing was still present. Two weeks after operation, the hearing was totally lost and the hot caloric test failed to elicit a response. A labyrinthotomy of the Hinsberg type was performed and pus found in the vestibule. Gradually the symptoms abated, and complete recovery followed.

ANDREW CAMPBELL.

MISCELLANEOUS

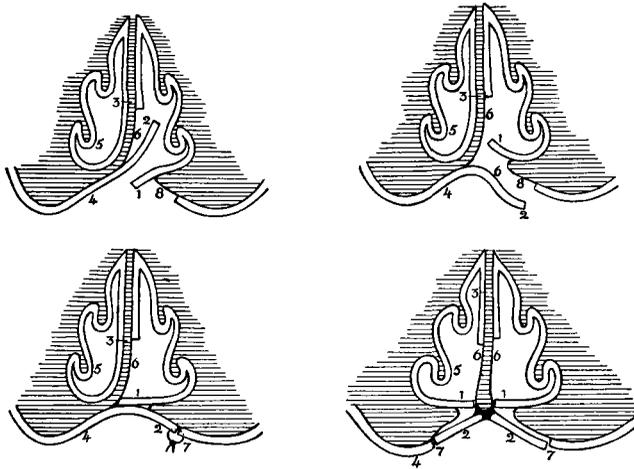
The Closure of Congenital Clefts of the Hard Palate. By ANDREW CAMPBELL, M.B., F.R.C.S.E., Johannesburg. (*The British Journal of Surgery*, Vol. 13, No. 52, 1926.)

In this paper the author describes a method devised by himself for the closure of the gap in the palate by employing the septal tissues of the nose.

Miscellaneous

First a palatal flap of mucoperiosteum is cut from the buccal surface of the palate on the same side as the cleft. The flap has its base at the lateral margin of the cleft, its width being a little larger than the width of the cleft. Then by means of submucous resection of the septum a nasal flap (varying in size to the needs of the case) is turned down with its base at the medial margin of the cleft.

We have thus two flaps, a palatal flap with its hinge along the lateral margin of the cleft and a nasal flap with its hinge along the medial margin of the cleft. The palatal flap is hinged upwards so that it comes to lie with its medial edge in apposition with the lower edge of the nasal septum, and with its raw surface looking downwards



KEY.—1. Palatal flap. 4. Palate. 7. Suture line.
 2. Septal flap. 5. Inferior turbinal. 8. Palatal raw surface.
 3. Nasal septum. 6. Septal raw surface.

into the mouth. The nasal flap is turned down into the mouth with its raw surface looking upwards into the nose and its lateral edge in approximation with the lateral edge of the palatal incision. The two flaps are brought together with their raw surfaces in apposition and the gap in the palate is thus filled by a broad plane of union presenting no raw surface either in the mouth or in the floor of the nose. Both flaps contain periosteum. Very few stitches are needed. After a little practice the operation can be done in about twenty minutes.

Full details are given with regard to measuring and cutting flaps, stitching, after-treatment and other points. The paper is illustrated. The illustrations reproduced here show the steps in the operation very clearly, and give an immediate vision of the possibilities of this method of dealing with cleft-palate, unilateral or bilateral.

NICOL RANKIN.

Abstracts

The Dangers of Introducing Iodized Oil into the Tracheo-Bronchial System. EDWARD ARCHIBALD, M.D., Montreal, and A. LINCOLN BROWN, M.D., San Francisco (*Jour. Amer. Med. Assoc.*, Vol. lxxxviii., No. 17, 23rd April 1927, p. 1310.)

The authors discuss the dangers under the following headings:—

1. Administration: some danger always attends the use of anæsthesia, and anæsthesia is generally used. Local sepsis and laryngeal œdema may result from a false passage if the intra-cricothyroid route is used. If the deglutition method is used large quantities of oil reach the stomach.
2. Transportation of infected material from the mouth into the lungs. Experiments are described to show that lipiodol has little or no antiseptic action.
3. Cough: lipiodol is a foreign substance in the lung and cough may activate a pathological process already present. Cough may also spread infective material into healthy alveoli.
4. Mechanical factors: lipiodol being heavy, may act as a plug sufficient to cause respiratory embarrassment and interfere with the drainage of the infected bronchi and alveoli.
5. Drug factor: certain oils are not properly prepared and are irritating. Some patients have an idiosyncrasy to iodine, and in tuberculous patients it may actually bring about a sensitisation effect with activation of quiescent disease.

ANGUS A. CAMPBELL.

The Effect of the Injection of Lipiodol and the Rate of its Disappearance in the Normal and Diseased Lungs. DAVID H. BALLON, M.D., and HARRY C. BALLON, M.D., Montreal, Canada. (*Canad. Med. Assoc. Jour.*, April 1927, xvii., 410-416.)

This study is based on over 100 bronchoscopic injections with lipiodol in the human subject, and on experimental work on 35 rabbits. Four questions are considered:

1. Does the injection of lipiodol into a healthy or diseased lung produce any immediate untoward reactions?
2. Does the persistence of lipiodol vary in the normal and in the diseased lung?
3. Is the persistence of lipiodol in the healthy and in the affected lung, harmful, beneficial, or neutral?
4. What factors affect the rate of disappearance of lipiodol from the normal and from the diseased lung?

The authors conclude: 1. That the injection of lipiodol produces no immediate untoward reaction in man or animal; is not harmful and persists longer in a healthy lung.

2. The rate of the true elimination in the normal and pathological lung is influenced by the lipolytic activity of the lung. Its disappearance from the bronchial tree is dependent upon cough, posture, and other factors.

3. In non-tuberculous abscess of the lung no reaction has been noted. It usually persists for a week or two, and is not directly beneficial.

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4. In bronchiectasis no immediate reactions have been observed. It is not infrequently beneficial, lessening cough and diminishing expectoration. In bronchiectatic cavities with stasis the presence of lipiodol was still noted two months after injection.

5. In pulmonary tuberculosis of the exudative type, and in tuberculous pneumonias immediate reactions were produced, and its persistence produced ill-effects. These patients should not be injected. Selected cases of the surgical type of pulmonary tuberculosis are usually suitable for injection, and do not produce any reactions. The persistence of lipiodol in a tuberculous lung free from abscess or bronchiectasis is about the same as in the normal lung.

6. Röntgenograms show that over 50 per cent. of the patients swallowed some lipiodol. No iodism was noted.

7. Röntgenologically the presence of lipiodol in the lung resembles an unresolved pneumonia or an exudative or miliary tuberculosis.

Among the illustrations is a section of a lung with lobar pneumonia injected with lipiodol five days before death; also one showing it in the cartilage cells of a rabbit's trachea. E. HAMILTON WHITE.

Local Anæsthesia by the Retromaxillary Route. DR BIRKHOLOZ (Annaberg, Herzogovina). (*Zeitschrift für Hals-, Nasen-, und Ohrenheilkunde*, Band xvii., Heft 2, p. 176.)

The author protests against this route as the one of choice in view of the varying anatomical form of the pterygopalatine canal. Its small calibre and the relatively considerable size of the contained blood-vessels make it much more likely that the injection will enter the vein rather than the nerve sheath; there is the risk of such an undesirable accident as the passage of suprarenin into the circulation. The possibility of the needle breaking in the canal has also to be taken into account.

JAMES DUNDAS-GRANT.

REVIEWS OF BOOKS

Handbook of Diseases of the Ear for the use of Students and Practitioners. By RICHARD LAKE, F.R.C.S. Eng., and A. E. PETERS, M.D. Cantab., F.R.C.S. Eng.

This is the fifth edition of Mr Lake's well-known handbook, which first appeared in 1903 and reached its fourth edition in 1912. The general arrangement remains as before, but considerable additions have been made to bring the book into line with modern advances. The first chapter for instance assumes the title of "A brief description of the Anatomy and Physiology of the Ear" instead of being designated anatomical only, and a very excellent and concise account of the