The Ear

Skiagrams of the Petrous Bone used in Diagnosis—DAN MCKENZIE, M.D.—The following case particularly illustrates the value of skiagrams of the petrous in excluding otosclerosis.

The patient, a woman aged 35, suffered from progressive deafness, which began when she was 21. Progress was slow at first, but during the last two years it has been more rapid, especially since she became pregnant three months ago.

The hearing was seriously affected, and the signs were those of nerve-deafness; bone conduction being reduced to minus 15 seconds, and the Rinné was positive in both ears. The highest tone audible was the C. 512 tuning-fork, the monochord not being heard at all. On the other hand, C. 64 was audible by both ears.

Pronounced nerve-deafness in a young person suggested syphilis. But the Wassermann reaction was negative and there was no history of this dyscrasia. As it might be a cochlear otosclerosis the patient was sent to Dr Graham Hodgson to have the petrous bones X-rayed.

The films exhibited Dr Hodgson's reports as showing no evidence of otosclerosis.

The idea of functional or hysterical deafness did not occur to us until the negative X-ray report had been returned.

We then applied the cold caloric test and found the vestibular reactions normal. Not only so, but as often happens, the shock raised the hearing for the voice from one inch to fifteen feet.

The patient has also become aphonic lately.

The value here of the negative X-ray finding is obvious, but the exhibitor would point out that such a finding strengthens reliance upon positive findings in suspected otosclerosis.

ABSTRACTS

THE EAR.

The Superficial Cutaneous Vessels of the Tympanic Membrane, their Topography and Physiology. ERY LUSCHER, Berne. (*Zeitschrift für Hals-, Nasen-, und Ohrenheilkunde*, Band xxii., Part I.)

These points have been greatly elucidated by the use of the capillary microscope. The middle third of the membrana tensa sends its blood towards the umbo and from there along the manubrium to the upper wall of the meatus. The blood from the other two-thirds runs towards the periphery. (Our readers may remember Schirmunski's method of making a lasting perforation by cutting the membrane round the umbo about halfway between it and the periphery, *Journ. of Laryng. and Otol.*, vol. xlii., 1927, p. 779). The membrana flaccida shows great variety in the course of its superficial vessels. The capillary pressure has

been measured by means of an air-tight Siegle's speculum and averages 60 mm. of water with extremes of 32 and 94. In larger vessels (about 40 μ) the pressure varies between 56 and 136, averaging 94 mm. of water. Normally the majority of the vessels are in a state of tonic contraction but they may expand 100 to 200 fold.

JAMES DUNDAS-GRANT.

Studies in the Normal and Pathological Anatomy and Histology of the Inner Ear of the Horse (*Equus caballus*). PAUL COHRS, Leipzig. (*Archiv. für Ohren-, Nasen-, und Kehlkopfheilkunde*, Band 118, Heft 1, June 1928.)

In the first part of this article of sixty pages, with nine illustrations, the anatomy and histology of the petrous temporal bone of the horse are exhaustively described. The second part of the work is devoted to certain pathological changes which have been observed. In about half of all horses degenerative changes occur in the cochlea, commencing in the peripheral neurones, and leading to vacuolation of the ganglion cells, atrophy of the nerve fibres and wasting of the supporting cells of Corti's organ. The changes are bilateral, and occur irrespective of the sex, breed or colour of the animals. The influence of domestication remains uncertain. Senility and endogenous toxins are regarded as the causes.

W. O. LODGE.

Masked Mastoiditis in Children up to the Age of Two Years. F. A. MACNEILL, M.D. (*Journ. Canadian Med. Assoc.*, June 1928.)

The author describes a group of cases in which he thinks the full importance of middle-ear infection has not been sufficiently recognised. These are cases in infants with acute otitis media associated with severe gastro-intestinal disturbance and fever. He thinks the general practitioner is apt to explain the constitutional disturbance as due to the gastro-intestinal rather than the ear infection, which he regards as the primary factor; the gastro-intestinal symptoms are of a secondary toxic nature.

In a series of cases rapid improvement and recovery followed mastoid drainage. He states that careful local examination always reveals local indications of trouble in the mastoid which would be overlooked if the case were viewed too much as one of gastro-enteritis.

E. HAMILTON WHITE.

Zinc Ionisation in Otological Therapeutics. R. CAUSSÉ. (*Annales des Maladies de l'Oreille, du Larynx, du Nez et du Pharynx*, January 1928.)

The writer, following closely the method of Friel, is the first French observer to publish the results of his experience in treating chronic suppuration of the ear by zinc ionisation.

He describes clearly the technique to be adopted, the choice of suitable patients and the errors to be avoided if success is to be achieved. He substantiates the claims made by Friel and other workers, and even goes further in stating that cures can be obtained in some cases even where bone-lesions are present.

Apart from the cure of the discharge he claims that the method can be rendered absolutely free from pain and discomfort by paying strict attention to his technique (which includes preliminary examination and careful application of the requisite amount of current), and that hearing is usually ameliorated, as well as those symptoms of headache and vertigo which often accompany old-standing cases of otorrhœa. Tinnitus, on the other hand, is not modified.

L. GRAHAM BROWN.

The Modifications of the Basal Metabolism and Equilibrium of the Fluid Contents of the Body in Otosclerosis. M. SUNDRAIL, H. LASSALLE and S. BONPUNT. (*Annales des maladies de l'Oreille, du Larynx, du Nez et du Pharynx*, January 1928.)

Following the suggestion now generally recognised, that the disease of otosclerosis is an expression of the disturbance of endocrine balance, the writers have conducted experiments in fifteen undoubted cases of this disease to find out how they differ from the normal as regards their basal metabolism and equilibrium of fluid contents of the body.

The conclusions come to are as follows:—

(1) As a rule there is a decrease in the basal metabolism.
(2) There is a condition of slightly compensated acidosis.
(3) There is a marked decrease in calcium contents of the serum which is effected at the expense of the organic calcium.
(4) There is a manifest hypophrophatæmia.

They discuss these results and their significance in connection with the present-day theories of the functions of the thyroid, hypophysis and sexual glands and point out the obvious analogy with other great bony dystrophies, *e.g.* rickets and osteomalacia. Hence they confirm their theory, viz., that otosclerosis is not a disease limited to the labyrinthine capsule but only a local manifestation of an unstable and badly disturbed neuro-endocrine balance. L. GRAHAM BROWN.

Speech Disturbances in Otogenic Temporal Lobe Abscesses. R. SONNTAG, Rostock. (*Zeitschrift für Hals-, Nasen-, und Ohrenheilkunde*, Band xix., Heft 5.)

Sonntag arrives at the conclusion that in cases of left-sided otogenic temporal lobe abscesses, in right-handed people, the percentage of speech disturbances reaches 87.5, a considerably higher proportion

than that of 42 per cent. found by Schmiegelow. He attaches importance to making the "naming" test repeatedly, as it may vary from one day to another. JAMES DUNDAS-GRANT.

The Results of Labyrinthine Tests in Two Cases of Posterior Fossa Tumours. RALPH ALMOUR. (*Laryngoscope*, Vol. xxxvii., No. 11.)

Two interesting cases are described with details of rotation and caloric tests :—

CASE I.—A married woman, aged 29, suffered from a cerebello-pontine angle tumour on the right side, and the salient features were as follows:—(1) Right acoustic nerve deafness; (2) turning to right produced a nystagmus twice as long as turning to left, and there was faulty past-pointing, especially with the right hand; (3) there was no response to cold caloric in the right ear, but perverted nystagmus on douching the left vertical canal. On douching both horizontal canals the reaction was normal but exaggerated. The diagnosis of cerebello-pontine angle tumour was made because of vertigo, unilateral tinnitus, staggering gait, numbness of face, spontaneous vertical and horizontal nystagmus, choked discs, facial paresis, acoustic nerve deafness, absent responses from right vestibular stimulation, and perverted response from left vertical canal. This patient was operated upon by Dr Cushing and an acoustic neuro-fibroma was found on the right side. She made a complete recovery.

CASE II.—A girl aged 12½ years suddenly became dizzy and developed a staggering gait, and shortly afterwards she became constipated and suffered from headache and vomiting. On examination she was found to have left facial paresis and ataxic gait, positive Romberg, falling to the left, slight ataxia of both upper extremities and right knee-jerk of the Gordon Holmes's type. The patient could be easily pushed backward. There was spontaneous rotatory nystagmus to the right and horizontal to the left, while vertical nystagmus upwards was also present. There was no spontaneous past-pointing. The hearing in both ears was normal and on rotation to the right no after-nystagmus was elicited. Turning to the left resulted in diminished nystagmus. Vertigo was absent and past-pointing was faulty, especially with the left hand. The cold caloric test showed an absence of reaction from the left ear and the right ear showed a delayed response—vertigo absent on both sides and faulty past-pointing, particularly with the left hand. A diagnosis of tumour of the left lobe of the cerebellum was made because of cerebellar inco-ordination and evidences of asynergia, together with a non-functioning left vestibular apparatus, normal left cochlear responses and impaired function of right vestibular apparatus. On operation a large osteoma of the temporal bone close to, but not

involving, the internal auditory meatus was found. The tumour was not removed but the patient made a complete symptomatic recovery from the decompression.

Both these tumours were within the cranial cavity but outside the brain substance; vestibular tests in both cases resulted in similar responses in that there was a destruction of function on the side of the lesion with impairment of function on the opposite side. The differentiating feature was in the hearing tests.

ANDREW CAMPBELL.

THE NOSE AND ACCESSORY SINUSES.

Recent Experimental and Clinical Facts which Demonstrate the Influence of Diseases of the Nasopharynx and Sphenoidal Sinuses on the Pituitary Gland. SALVATORE CITELLI. (*Archives Internationales de Laryngologie*, February 1928.)

The greater part of the paper is devoted to a review of previous work on the subject and to the author "pegging his claim" as the originator of a doctrine he expounded in 1909. The doctrine asserted that many pathological conditions of the pharyngeal vault produced changes in the extra- and intra-cranial portions of the pituitary gland. In the majority of cases, the changes consist in alterations in the cellular system and colloidal content of the anterior lobe of the pituitary gland.

Such effects might, for instance, be produced by adenoid growths, nasopharyngeal tumours and sphenoidal sinus suppuration.

The author had previously shown that in about 50 per cent. of children there is microscopical evidence of the stomodæal origin of the anterior lobe of the pituitary gland. Further, he showed that the persistence of the craniopharyngeal canal is not so uncommon as usually supposed. Serial sections of twenty cadavers showed a complete craniopharyngeal canal to be present three times and an incomplete canal once.

He had also shown that the vascular relationship between the extra- and intra-cranial portions of the pituitary gland is a very intimate one.

Considering the clinical aspect of the question, Citelli's syndrome comprises the following symptoms: Sleeplessness (sometimes insomnia), intellectual torpor, lack of interest and inattention.

In 1915 the author, working with Basile, had, under experimental conditions, stimulated with the cautery the nasopharyngeal vault of such animals as rabbits in whom the craniopharyngeal canal is never closed. It was found that definite changes were produced in the pituitary gland.

The author now describes some recent experiments carried out on

the same lines, but with mild stimulation with tincture of iodine and silver nitrate. Similar effects on the pituitary body were noted.

In addition to the symptoms above mentioned in Citelli's syndrome, the author calls attention to cases where "adenoids" are associated with sexual changes similar to those found in affections of the pituitary body. MICHAEL VLASTO.

THE LARYNX.

The Function of the Ventricle of Morgagni. C. M. HARTOG, The Hague. (*Acta Oto-Laryngologica*, Vol. x., fasc. 2.)

The writer demonstrated a case of a man, aged 31, a singer with a fine, strong, well-trained voice. When the patient turned his face to the right and looked over his shoulder, his voice suddenly became weak and lost its brilliancy and metallic timbre. With the head in this position the entrance to the right ventricle of Morgagni was seen to become very narrow and sometimes almost closed, differing greatly from that on the left side.

The writer asks: Can the shutting of one ventricle of Morgagni have such a weakening influence on the voice? He then proceeds to describe the anatomy of the ventricle and to recall what certain physiologists and observers think of its function. Always much interested in singing and the study thereof, two things always attracted his attention in connection with strong voices:—

1. That the vocal cords have a more fleshy appearance and are not so white and clear.

2. That the entrances to the ventricles are larger than usual, the cleft being longer and more widely opened in phonation.

He believes the ventricles to have a real influence, in the form of resonators, on the development of the volume of sound.

H. V. FORSTER.

On the Treatment of Laryngeal Stenosis. A. RÉTHI. (*Zeitschr. f. Laryngologie, Rhinologie*, etc., Band xvi., November 1927.)

The main interest of this article lies in a special plastic operation which the author describes. The object of the operation is to widen the stenosed larynx and also to close the laryngeal stoma. On each side of this opening a bridge of skin, 2 cm. wide, is raised and the edges of the raw surfaces are drawn together and sutured underneath the two bridges of skin. When firm scar tissue has formed, the edges of the laryngeal stoma are definitely pulled apart. Later, the two skin flaps, still attached above and below, are partly detached and

they are re-implanted by their medial edges into the margin of the stoma. At a still further stage they are turned across the laryngeal opening, their skin surface forming the anterior wall of the new and widened laryngeal tube. The raw surface which is left on the outside is covered by a skin flap which is taken from the clavicular region of the neck and which is turned upwards.

Complicated plastic operations are always difficult to describe, but in this instance the text and the illustrations are very clear and easy to follow. J. A. KEEN.

Two Cases of Chondroma of the Larynx. BENNO GROSSMANN. (*Monatsch. f. Ohrenheilk.*, November 1927.)

During the last seven years the author states there have only been two instances of such tumours amongst the large number of patients attending Hajek's Clinic; he therefore thinks they should be published.

CASE I.—Man, 61 years old, first applied for relief on 27th October 1919, complaining that for some months he had suffered from cough and difficulty in breathing. Examination by the indirect method revealed that the whole left half of the larynx was fixed and occupied by a reddish-grey tumour, apparently originating from beneath the left arytenoid cartilage. The right vocal cord was normal and mobile. On direct examination, a very hard tumour, the boundaries of which could not be determined, was found to fill almost the whole subglottic space. The histological report on a specimen removed therefrom stated that it was formed of bony and cartilaginous areas covered with a chronically inflamed mucous membrane and flattened epithelium.

On account of increasing and more severe attacks of dyspnœa, tracheotomy was performed, and when the wound was healed, the man was discharged as an out-patient. Later, in order to determine more accurately the condition and extent of the tumour, Hajek performed a laryngofissure under a local anæsthetic. The incision extended from the hyoid to the lower border of the cricoid. On separating the two halves of the thyroid (which were ossified) the right side of the larynx was normal, but a tumour of bony hardness was found to involve the left side of the larynx, extending from the arytenoid to the cricoid and occupying the whole lumen. After a circular incision, the tumour was loosened, leaving a space the size of a hazel-nut, bounded externally by eroded thyroid cartilage. Histological examination confirmed the previous reports.

The wound healed normally, but as attempts to maintain the patency of the larynx were unsuccessful, and the tumour was rapidly recurring, total removal of the larynx was undertaken. Convalescence from this

operation was normal, and the patient had no trouble in swallowing or breathing and felt fairly well for a year, when he was again admitted to hospital in a weak febrile state, with considerable bronchitis associated with what proved to be numerous chronic tuberculous foci in both lungs. His general condition gradually became worse. Autopsy confirmed the previous histological report, and also revealed the presence of chronic tuberculosis of the lungs and a tertiary lesion of the aorta.

CASE II.—Man, aged 53 years, was admitted complaining that he had suffered from a cough for some three years and for the last year had had difficulty in breathing. On examination, the right vocal cord was normal, but the left ventricular band, vocal cord and corresponding subglottic space were all involved in a swelling. On account of dyspnœa, accurate examination was impossible, and therefore tracheotomy was immediately performed under a local anæsthetic. Convalescence was unsatisfactory and febrile, and later a tender red swelling appeared above the right clavicle. A swelling also occurred in the right upper arm; there was a swelling of the left knee-joint, and, associated with increasing temperature and rigors, the patient died from pyæmia. Autopsy revealed typical chrondroma of the cricoid cartilage chiefly involving the left side, but also extending to the right.

The article closes with a discussion on pathology, etiology and treatment. ALEX. R. TWEEDIE.

Contribution to the Operative Treatment of Unilateral Recurrent Paralysis Secondary to Operation on the Thyroid Gland. Dr GRASSMANN. (*Münch. Med. Wochenschrift*, Nr. 39, Jahr. 74.)

If the case is definitely established and cannot be improved by functional re-education, paraffin injection of the affected cord may be resorted to, but the result is uncertain and is not free from risk. The further choice of active treatment is limited to the operation of Payr (*Deut. Med. Wochenschrift*, 1915, Nr. 43) or that of Schmertz (*Brüns' Beitr.*, Band cxviii., Heft 2). The former cuts a flap from the thyroid cartilage and buries it after the fashion of a trap-door towards the interior of the larynx; the latter encircles the wings of the thyroid cartilage by means of a free transplant of fascia, and by this means constricts the transverse diameter of the larynx. Payr records two cases of success by this method. Grassmann here records a very successful case of his own after the method of Schmertz, in which the functional success was immediate, and has remained so for the seven years which have succeeded operation. He considers that this method induces a closer approximation to normal conditions.

J. B. HORGAN.

The Larynx

Clinical, Pathological and Anatomical Contribution to Laryngeal Carcinoma. KARL GRAHE. (*Archiv für Ohren-, Nasen-, und Kehlkopfheilkunde*, Band cxviii., Heft 2, June 1928.)

Seventy-five cases of carcinoma of the larynx have been treated at the Halle Clinic during the past five years. Of late there has been a distinct general increase in the incidence of carcinoma, but patients are certainly being referred for treatment at an earlier and more hopeful stage of the disease. The age incidence was as follows:—

Age.	20-29	30-39	40-49	50-59	60-69	70-80
No of Cases. . .	1	3	13	17	28	7

Sixty-eight cases were in males, seven in females. Other statistics quoted show that ten males to one female is quite an average proportion. Ferreri explained this by a supposed greater tendency in males to transformation of epithelium of the free edges of the vocal cords into flat horny cells, due to overstraining the voice; but no special confirmation of this was discernible in the series of cases under consideration.

There were thirty-one intrinsic, eight extrinsic, and twenty-six mixed cases of carcinoma. In ten, the starting point was unascertained. Affections of the true vocal cords were in the majority; other statistics quoted are at variance here. There were two subglottic cancers.

As to etiology, the writer's impressions concerning the influence of tobacco, syphilis, chemicals, etc., were in accordance with general experience. There was one interesting example of the development of cancer in a scar.

Numerous cases of special interest are described in the text. The youngest patient, a man of twenty-one, had a polypus at the anterior commissure. A fragment removed for microscopy showed typical cell-nests. The growth was excised by laryngofissure, and some suspicious granulations which subsequently made their appearance were destroyed by diathermy. It has been noted that cases in young adults are apt to run a particularly malignant course. The patient was still living and free of trouble a year later. In this case a reference appears to the prelaryngeal glands, towards which lymphatics pass through the crico-thyroid membrane.

The histological section of the paper is illustrated by six drawings of the microscopic appearances. All the growths were squamous carcinomata. Much practical interest centres on the relative malignancy of these tumours. The oft-misleading information yielded by excisions of small portions for microscopy is well brought out.

Twenty-one cases were treated by laryngofissure, two by hemi- and nine by total laryngectomy. One was treated by diathermy and the remainder by X-rays and radium, with tracheotomy when necessary.

Fifteen of the surgical cases are referred to as healed, and one patient treated by X-rays only is well a year and a half later. The writer hopes that in time mutilating operations will become the last resort rather than the method of choice.

A bibliography is appended. W. O. LODGE.

Intrinsic Cancer of the Larynx. Sir ST CLAIR THOMSON. (*Lancet*, 1928, Vol. ii.)

The writer deals with the history of his subject and his own material to stress the truth that stereotyped errors or exaggerations in medicine are difficult to eradicate. His conclusions, based upon 70 cases, are as follows:—Impaired mobility of a vocal cord is not a necessary nor an early symptom of intrinsic cancer of the larynx. It is met with in about 44 per cent. of cases suitable for laryngofissure. It is more apt to develop in an imbedded or infiltrating neoplasm than in a distinctly sessile or projecting growth. When present it is a valuable symptom in helping to distinguish a malignant from an innocent neoplasm. It is of little value, and may even be misleading, in diagnosing a malignant growth from a tuberculous or syphilitic deposit. Its absence is of good augury and hence the desirability of making an early diagnosis before it has developed. As regards prognosis, its presence is an unfavourable symptom. Its absence or presence is a valuable factor—in conjunction with other data—in determining the most suitable treatment.

MACLEOD YEARSLEY.

Cancer of the Larynx, Intrinsic and Extrinsic. Sir WM. MILLIGAN, M.D., LL.D. (*Practitioner*, June 1928.)

The generally excellent results which follow excision of a vocal cord for carcinoma are due largely to two factors:—

1. Early recognition of the nature of the disease.
2. The fact that intercommunication between the lymphatics of the inside and of the outside of the larynx is extremely sparse.

It is a mistake, however, to suppose, as is frequently taught, that there are few lymphatic channels within the larynx itself. The interior is richly supplied with lympathics and there is a free anastomosis between individual branches. The effluents from the interior of the larynx are, however, few, and lead to two small glands upon either side of its cartilaginous framework, from which no communications pass to the general lymphatic circulation.

Moreover, for a long period an intrinsic growth does not ulcerate, so that the factor of sepsis is absent. In extrinsic cancer, infection occurs at a much earlier stage, hence its more rapid advance.

To perform a laryngofissure for the removal of a growth which is extrinsic is the height of folly. The age and sex incidence is dealt

with, as also incidence with reference to population. Impaired mobility of the affected cord, the author has found in about one-half of his cases. He stresses the point that this must not be waited for to clinch the diagnosis; it means nothing more and nothing less than that the adjacent muscular tissue has become involved in the process.

On the question of the advisability or otherwise of removing a piece of the growth for histological examination before operation, the author is in favour of such procedure in doubtful cases, but advises irradiation beforehand and also the shortest possible interval between the taking of the specimen and the operation. Any attempt at endolaryngeal extirpation of the growth should be condemned.

A low tracheotomy a week or so before laryngofissure is recommended—

1. To allow the patient's lungs to get accustomed to the altered method of respiration.
2. To prevent aspiration of blood and mucus.
3. To enable the larynx to be reopened and packed if post-operative hæmorrhage renders this necessary.

The use of adrenalin during the operation is deprecated as it is prone to be followed by reactionary hæmorrhage.

The window-resection operation does not, in the author's opinion, give sufficient access to the growth.

In extrinsic cancer four courses are open to us:—

1. The introduction of a permanent tracheotomy tube.
2. Laryngectomy. 3. Deep X-ray treatment. 4. Radium treatment.

"Whether in the future the treatment of a limited intrinsic carcinoma of the larynx with radium will supersede surgical measures, is impossible to say, but the trend of events is marching in that direction."

A window-resection of a portion of the thyroid cartilage is recommended, without injury to the inner perichondrium against which radium needles are placed.

The author's experience of deep X-ray therapy has not been encouraging, but he thinks there may be a place for combined radium and deep X-ray treatment. T. RITCHIE RODGER.

Malignant Disease of the Larynx and Œsophagus treated by Radium Emanation. FRANK R. HERRIMAN. (*Laryngoscope*, Vol. xxxvii., No. 9, p. 664.)

Although radium has been used for a considerable time for œsophageal and laryngeal cancer, the difficulty, most workers admitted, lay in the methods of application.

Previously the radium was either applied externally or enclosed in

a suitable container and was hung in the throat upon a cord dangling as close to the affected part as possible. Dr Joseph Muir of New York originated a method of implanting radium emanation in removable platinum seeds. These "seeds" when implanted in a series of advanced and desperate cases have given immediate success, though sufficient time has not elapsed to admit the drawing of definite conclusions.

The lesion in the nine cases described in detail was a squamous-celled carcinoma. It is obvious that most of the cases have benefited vastly, though it is still too early to consider the curative value of this method of employing radium emanation. As a palliative it is far in advance of anything else hitherto put forward for this purpose.

The following case may be cited as an example:—W. J. McI., age 65, a specimen from whose larynx was reported on as an advanced squamous-cell carcinoma, underwent suspension laryngoscopy; platinum radion seeds to the value of 2000 millicurie hours were implanted. These were withdrawn after fourteen days, and a second implantation of 1233 millicurie hours was made. At this time the larynx was clear and the swelling of the neck greatly diminished. Two more seeds were used and thirteen days later seeds to the value of 1333 millicurie hours were applied. A final implantation in about one month was made of three seeds in the right arytenoid and one in the left, one in the false vocal cord and another in the posterior pharyngeal wall. When seen, the immediate result was very satisfactory; this patient received 7000 millicurie hours without any ill effects. Other more spectacular results are described.

ANDREW CAMPBELL.

MISCELLANEOUS.

The Intensive Treatment of Severe Diphtheria. H. S. BANKS and G. MCCRACKEN. (*Lancet*, 1928, Vol. ii.)

The writers give preliminary observations upon the treatment of severe diphtheria by large doses of antitoxin given chiefly intravenously. The technique and dosage are described in detail. The main objections to the method are expense, additional work to the medical staff, and danger from allergic reaction. These seem to be out-balanced by the reduction of mortality (from 9.3 per cent. to 2.6 per cent.) alone. The authors consider that toxic diphtheria is to be regarded as an acute emergency, like a gangrenous appendix or a perforated gastric ulcer, and requires immediate expert medical attention. Haphazard subcutaneous injection of serum is equivalent to postponing operation on a gangrenous appendix for three days. The danger from the allergic reaction can be fairly met by prophylactic treatment and the use of adrenalin or pituitrin.

MACLEOD YEARSLEY.

Miscellaneous

The Moistening of Mucous Surfaces under Normal and Pathological Conditions, especially in Functional Disturbances such as Vasomotor Rhinitis, Bronchial Asthma, etc. HERMANN STERNBERG (Vienna). (*Zeitschrift für Hals-, Nasen- und Ohrenheilkunde*, Band xix., Heft 2, p. 104.)

The liquid content of the tissue is derived from the blood passing through the capillaries into the parenchyma. It also undergoes reabsorption, and alterations in the balance between these two processes determine the degree of swelling of such bodies as the erectile tissues in the nose. The moisture for the surface is produced by secretion from the glands and transudation from the subjacent tissues. Dryness of the surface with formation of crusts results from diminution of transudation whereby the mucous secretions from the glands and surface epithelium are insufficiently diluted. The "coryza" following the application of cocaine and adrenalin often affords relief in congestive conditions of the nose and nasal sinuses. Beneficial effects from injections of small doses of iodine have been observed by Sternberg (*Journ. of Laryn.*, Vol. xlii., p. 548).

JAMES DUNDAS-GRANT.

One Hundred Cases of Apparently Cured Pollen Hay Fever. I. CHANDLER WALKER, M.D., Boston. (*Journ. Amer. Med. Assoc.*, Vol. xc., No. 10, 10th March 1928.)

The author groups the series into three Tables. Table I. represents 39 patients who were treated with cutaneous pollen tests to which they were previously sensitive until they were either negative or practically so, and who had been free of hay-fever symptoms for three or more years since treatment was discontinued. Table II. contains 39 patients in whom equally satisfactory clinical results were obtained, but in no instance did the cutaneous test become negative. Table III. contains 22 patients who had been free of symptoms for two years since treatment was discontinued; 17 of these became negative to cutaneous tests, the remaining 5, although not giving negative reactions, showed more or less diminished reaction.

During the last few years the tendency has been to shorten the intervals between inoculations, even giving two treatments daily. Sex did not seem to make any difference as to the results. Since cessation of treatment, 9 have been free of symptoms for six years, 78 for three years, and all without symptoms for two years. In 22 cases the cutaneous test with the causative pollen was changed from markedly positive to negative; in 22 others the cutaneous test was only very doubtful when treatment was discontinued; in 3 others the test was positive only with the whole pollen, and in 9 others no greater dilution

than 1 : 100 or 1 : 500 evoked a reaction. In 44 cases the cutaneous test was not markedly changed. The patients were treated at weekly intervals for a period of from thirteen to sixteen weeks previous to the usual onset of symptoms. In all cases careful cutaneous tests were performed with the various dilutions of the causative pollen protein in order to determine with what dilution or strength of pollen protein treatment should be begun; furthermore, because such tests are a guide in determining not only the successive increases in the dosage but also what may be considered satisfactory treatment for each patient. When the pollen test becomes negative, it seems to be safe to stop hay-fever treatment. With the patients in whom the pollen test does not become negative, it seems desirable that the patient should have had at least one season and preferably two seasons of complete freedom from hay fever, while being treated, before treatment should be discontinued. Several of these patients had had asthma during the hay-fever season, and all had entire relief. ANGUS A. CAMPBELL.

Complete Anotia with Aplasia of the Tonsil. SERCER, A. (Zagreb). (*Zeitschrift für Hals-, Nasen- und Ohrenheilkunde*, Vol. xxii. Part I., p. 75.)

This combination, found on the right side of a girl of five months old, indicated the involvement of the lateral part of the first branchial cleft and the medial portion of the second cleft. It is probable that the parts lying between these (the dorsal parts of the first and second arch and the medial part of the first cleft) were undeveloped, these being the auditory ossicles and the tubo-tympanic tube. The child was too young for Röntgen examination, but there was every possibility of the labyrinth being complete, as its development begins at an earlier period and from a different place of origin by the cutting-off of the ectoderm dorsal to the first cleft, to form the *vesicula auditiva*. As the auricle is formed from cartilaginous nodules round the external acoustic meatus its development is independent, and it may be malformed without any malformation of the inner or middle ear.

JAMES DUNDAS-GRANT.

Nasal and Oral Focal Sepsis in the Etiology of Gastro-intestinal and Pulmonary Infective Diseases. PATRICK WATSON-WILLIAMS, M.D. Lond., and F. A. PICKWORTH, B.Sc., M.B. (*Brit. Med. Journ.*, 2nd June 1928.)

In patients with nasal passages blocked by polypi, or with copious purulent gingivitis round the necks of living teeth, one often looks in vain for systemic complications. The copious outpouring of polymorphonuclear leucocytes seems a measure of successful local

resistance to the focal infection. Chronic bacterial toxæmia and subinfection are most prone to arise from chronic *latent* focal infections, with relatively non-purulent discharge. Hence the existence of a causal focal sepsis in pulmonary or gastro-intestinal infection is often to be discovered only by careful investigation. Sepsis of the mouth, pharynx and nose may affect the lower respiratory tract or gastro-intestinal tracts in three ways:—(1) By direct spread of infection along the mucous membrane: (2) Through the blood stream or lymph channels: (3) By inhalation of septic particles or secretions or by swallowing of enormous numbers of organisms. Stress is laid on the importance of a detailed history of the patient's previous illnesses, and several interesting cases are cited where recurring attacks of appendicitis, cholecystitis, pneumonia, bronchitis and cerebral symptoms were explained by the later discovery of a latent sepsis in one or other of the paranasal sinuses. In pulmonary cases, where tuberculous disease is suspected, but no tubercle bacilli are found in the sputum, the other organisms found should not be ignored, and a careful investigation made to discover their source.

T. RITCHIE RODGER.

Barbital to prevent Toxicosis from Local Anæsthetics.

C. B. WILLIAMS. (*Laryngoscope*, Vol. xxxvii., No. 12.)

The Pharmacology Department of the University of Chicago reported in 1925 that the intravenous injection of sodium barbital and paraldehyde in dogs would increase tolerance to cocain by some 400 per cent. Leshure states that he had been in the habit of prescribing morphin and atropin for patients requiring a local anæsthetic, but he found that a considerable number of patients exhibited symptoms of poisoning. He therefore substituted either diethyl barbituric acid (barbital) or its sodium salt, with the result that no signs of poisoning were noted in a hundred cases. Barbital is an efficient antidote to cocain and similar drugs.

The author has tried the same drugs as an antidote and agrees with Leshure as to their value in the prevention of cocain poisoning. Five grains of barbital are taken by the mouth two hours before operation and another five grains one hour before operation. The results have been good, though the treatment has only been tested in fifty-two cases.

ANDREW CAMPBELL.