SOCIETIES' PROCEEDINGS

ROYAL SOCIETY OF MEDICINE—SECTIONS OF ANÆSTHETICS AND LARYNGOLOGY

COMBINED MEETING.

February, 1920.

President—Dr LLEWELYN POWELL.

ABRIDGED REPORT.

Discussion on Anæsthesia in Throat and Nose Operations.

Dr F. S. ROOD.—An active co-operation and partnership between the surgeon and anæsthetist, and an appreciation and sympathy with the "steps" of each other's work, are not only essential to the success of the operation, but are vital to the safety of the patient. We do not get mysterious deaths during the induction of ether. The evidence that ether is the safer drug is so overwhelming that I think there are few surgeons or anæsthetists nowadays who would differ from this view. It is the proper anæsthetic for operations upon the nose and throat. There are two degrees of anæsthesia, deep and light. In deep anæsthesia all reflex activity of the pharynx and larynx is abolished. In light anæsthesia I do not, of course, mean a struggling patient. There is general muscular relaxation; the respiration is regular, but certain reflexes persist.

Operations upon the nose and throat stand out in marked contrast to all others in that blood can pass directly into the air passages. There are three alternative methods of preventing the blood entering the larynx:—

- (1) To use light anæsthesia and allow the patient to cough up his own blood.
- (2) To shut off the nasal cavities from the pharynx by means of a well-fitting post-nasal plug—using at the same time one of the many forms of mechanical breathing tubes.
- (3) By using the intratracheal insufflation of ether.

The next anæsthetic technique to consider is associated with the removal of tonsils and adenoids. There are from the anæsthetist's point of view two methods of removing tonsils—one with light anæsthesia, the other with deep anæsthesia. The first, or rapid method, consists in the removal of both tonsils with the reverse guillotine, the patient either lying on his back or sitting up. The

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profound anæsthesia necessitates some mechanical means to keep blood out of the air passages. In the special operation under discussion this end is secured in a very simple manner. The shoulders are raised upon a sandbag. The head is allowed to fall back and rest upon the vertex in such a manner that the front of the chest, the front of the neck and the chin are all in one straight line. Carried out by two people who are conversant with the details, the method is mechanically perfect. For direct examination of the larynx, trachea, and œsophagus by means of tubes, a profound anæsthesia is essential. Ether is the proper anæsthetic to employ.

Mr HERBERT TILLEY emphasised the greater safety of ether and advocated in tonsil removal the supine position of the patient with a sandbag under the shoulders so that the head falls backwards.

Dr WILLIAM HILL drew attention to the use of chloride of ethyl in the production of a rapid anæsthesia for tonsil operations.

Dr SILK pointed out that the period of ether induction can be shortened and the quantity used diminished by adding to it 3 per cent. chloroform. The combination has the further advantage in that it reduces the congestive hæmorrhage.

Mr STUART LOW emphasised the necessity of careful preparation of the patient, of silence during administration, and the value of team work.

Dr WATSON WILLIAMS said that in Bristol ether had been advocated for many years in operations on the upper air passages.

Sir WILLIAM MILLIGAN used Kuhn's peroral intubation tube on all possible occasions, as it precluded any risk of blood entering the air passages, if packing was properly adjusted. He commented on the great danger of injecting adrenalin into the tissues when general anæsthesia was used.

Mr BOYLE referred to combinations of anæsthetics and their sequence in administration. Gas-oxygen-chloroform sequence was used in diathermy operations.

Mr HAROLD BARWELL considered ether to be the best anæsthetic in nose and throat operations.

Dr BROWN KELLY continued to use bromide of ethyl in adenoid and tonsil operations, administered in the sitting posture.

Dr M'CARDIE described Mr Seymour Jones' method of maintaining anæsthesia during nasal operations.

TWO CASES OF PHARYNGEAL POUCH.—SIR J. DUNDAS GRANT.

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SECTION OF LARYNGOLOGY

February 6, 1920.

President—Mr E. B. WAGGETT, D.S.O.

Adeno-fibro-myxoma of the Nares and Naso-pharynx, removed by Lateral Rhinotomy—Mr C. FIRWIN CUTHBERT.—Male, aged 30, examined in August 1917, with an extensive tumour occupying both nasal cavities, maxillary and frontal sinuses, with a large portion resting against the body of the sphenoid. A further extension into the frontal cavity of the skull reaching about half-way up the frontal bone and lying upon the dura mater, was found at the operation. The whole tumour was shelled out of all the cavities without hæmorrhage, the external carotid arteries having been first clamped. Laryngotomy was performed and the pharynx plugged.

Exophthalmic Goitre: Thyroidectomy—Mr C. FIRWIN CUTHBERT.—Male, aged 19, seen May 1912, suffering from enlarged thyroid, polyuria, and intense thirst; no glycosuria. He had lost 4 stone during two years. Thyroid removed under local anæsthesia. Patient afterwards served in the army and was killed in November 1917.

Pharyngeal Diverticula: Report of Two Cases—Mr HORACE LAW.—CASE 1. Male, aged 53. Began to notice slight gurgling on swallowing liquids and an undue amount of saliva in his mouth; occasional attacks of choking when swallowing meat. X-ray and barium meal examination showed filling up of pouch followed by evacuation of the barium and its passage down the gullet. The mouth of the pouch was at the lower border of the cricoid plate and slightly to left of the mid-pharyngeal plane. The pouch was ligatured and excised.

CASE 2. Female, aged 70. Her only symptom was a constant accumulation of saliva. In this case the symptom was due to the impaction for seven months of a piece of cabbage stalk in the mouth of a very small pouch: granulation tissue had formed, giving the appearance of a fungating cancer. After removal of the foreign body the patient reported herself as normal.

Perithelioma (Alveolar Sarcoma) of the Frontal Bone—Mr H. LAWSON WHALE.—Male, aged 54, with a hard swelling in the region of the left eyebrow, displacing the eyeball outwards and downwards. Duration of history, three years. The growth was found, at operation, to extend along the orbital roof and to erode the outer wall of the frontal sinus without perforating it. The affected part of the sinus wall was removed with the tumour.

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Malignant Disease of Upper Jaw: Lateral Rhinotomy—

Mr C. W. M. HOPE.—Male, aged 49. The tumour, which was an epithelioma, involved the left antrum and superior maxilla, the ethmoid, which was its seat of origin, the bony orbital floor, the malar bone, and the soft tissues in the pterygoid region. The disease was removed by Moure's operation, and radium and X-ray treatment carried out.

Laryngeal Case for Diagnosis—

Dr ANDREW WYLIE.—Female, aged 47. Complained of some difficulty in swallowing for fifteen years, increased during the past twelve months. Swelling and oedema of both arytenoids with a small ulcerated area.

In the discussion, the opinion expressed by all the speakers was in favour of the condition being that of post-cricoid carcinoma.

Actinomycosis? of Tonsil—

Mr COUBRO POTTER and Major MARRIAN PERRY, R.A.M.C.—Gunner G. reported in October 1919 with an ulcerated throat: no diphtheria or Vincent's organisms: no syphilitic manifestations: Wassermann negative. Later, malignant disease suspected. Piece of tonsil removed for microscope: maxillary glands enlarged. Patient frequently sucked a piece of straw. Microscopic sections showed typical colonies of a streptothrix organism situated in the superficial layers of the tissue, the whole of the tonsillar structure showing signs of chronic inflammation. Exact species of streptothrix not yet determined. Large doses of iodide of potassium had been recently given.

Lingual Cancer in a Man, aged 65, treated with Copper

Alanine—Dr JAMES DONELAN.—Patient shown at previous meetings. The progress of the disease appears to be arrested.

Drs Dan M'Kenzie and Douglas Harmer commented on the action of the copper alanine, believing that the benefit which followed its use was due to its power of sterilising the tumour by destroying the septic organisms.

Lupus of the Tongue and Larynx—

Mr T. B. LAYTON.—Male, aged 20. No evidence of tuberculosis of the lungs. A piece of tissue removed from the tongue showed tuberculous granulation tissue.

Atrophic Catarrh of the Trachea—

Mr LIONEL COLLEDGE.—Male, aged 36. The posterior wall of the trachea was covered with dry crusts down to the bifurcation. There was no crusting seen in the nose, nasopharynx, or on the vocal cords at repeated examinations.

Cyst of the Floor of the Nose—

Mr G. W. DAWSON.—Girl, aged 21. A cystic swelling on the floor of the right nostril contained clear, straw-coloured fluid.

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Sections removed from a Papilloma of the Larynx with a Malignant Tendency, with Recurrence after a Period of Two or Three Years as an Epithelioma of the Opposite Cord—Mr H. BUCKLAND JONES.—Male, aged 75. Section of growth removed from left cord in 1913 reported as papilloma. Another section from the same piece reported as papilloma becoming epitheliomatous. Section of tissue removed from right vocal cord in 1916 appeared to be a definite epithelioma.

SECTION OF OTOTOLOGY

November 21, 1919.

President—Mr HERBERT TILLEY.

ABRIDGED REPORT.

President's Address.—The Teaching of Otology, Rhinology, and Laryngology in the Medical Schools of the United Kingdom (published in *The Lancet*, London, 6th December 1919).

Malformation of the Stapes—Professor S. G. SHATTOCK, F.R.S., and Dr S. R. TATTERSALL.—Malformations of the ossicles are extremely rare. The left stapes here described exhibits a form of hypoplasia. There were other defects of the same class present in the head, *e.g.*, cleft palate and bilateral hare-lip. The footplate is reduced to an oval process 1.7 mm. by 1.3 mm. in diameter, in which the anterior crus is inserted, the rest of the base being absent. The other crus terminates in a free, slightly bulbous end. The long axis of the footplate lies at right angles to the anterior crus. The head and neck are normal. The fenestra ovalis corresponds precisely with the footplate of the malformed stapes. The nearest approach to the malformation here recorded is the closure of the crus (columella formation) referred to by Politzer.

DISCUSSION.

Dr ALBERT GRAY.—There is no stapes in any mammal similar to this except in the Monotremes, in which a miniature columella is inserted in the middle of the footplate. No reptile has got a columella like that, but in one of the frogs there is an appearance somewhat similar. Mr W. STUART-LOW and Mr SYDNEY SCOTT also spoke.

Congenital Redundant External Meatus; Repeated Abscess Formation; Excision—Dr DAN M'KENZIE.—Boy, aged 7. At birth his doctor noticed a redundant auricle on the *right* side. At one year, the child developed an abscess behind

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the *left* auricle, which pointed both into the meatus and also behind and below the auricle. This was curetted by Mr George Wilkinson, who suspected that he had to deal with a suppurating dermoid cyst. In spite of three further operations, M'Kenzie found a sinus discharging pus in the lower mastoid region and another in the postero-inferior wall of the external meatus. The tympanic membrane was normal. By a post-aural incision, what seemed to be an additional external auditory meatus was removed (in two pieces). It lay anterior to the mastoid and below the normal meatus. No difficulty was experienced in effecting the separation of the two canals. The opening of the accessory meatus into the external meatus was quite minute. Dr Wyatt Wingrave reports: "This specimen shows all the elements of an aural meatus, but distributed most erratically." M'Kenzie has traced eight somewhat similar observations, but the cases in which the congenital nature is clear amount only to four.

Hysterical Deaf-Mutism of Eighteen Years' Duration—

A. F. HURST and W. M. MOLLISON.—Male, aged 18, heard perfectly well as a small baby. The deafness began after a slight illness or a fall on his head between the age of three and nine months. A number of aurists were consulted and stated that he must have been deaf from birth. The patient speaks like a deaf-mute. Hurst found that the vestibular reactions were perfectly normal. It was therefore explained to the patient, by the aid of lip-reading, that he could not hear because he had never tried to listen, and that if he once made the effort he would begin to hear. On the first occasion he was taught to listen sufficiently to hear his name pronounced. The same day he heard his bicycle bell. During the next three weeks he learned to hear a number of words. Each word had to be taught separately as it conveyed nothing to him until he realised what the sound meant by lip-reading. When once learned he could understand a word on a future occasion.

DISCUSSION.

Dr DAN M'KENZIE.—The test for functional deafness by means of vestibular tests has been very severely, even violently, criticised, and with justice. There are cases of nerve deafness in which the caloric tests are normal, and yet there is no reason to suppose that the deafness is other than organic. I think we may say that, when the caloric test is normal in undoubted severe or absolute nerve deafness, there is a presumption that the case is functional. I believe functional deafness to be much more common than some people think. When people are seriously deaf from an organic lesion there is also a functional element—a dulling of the nerve centres, so that they gradually become inert. It is those cases which respond to many forms of treatment which we decry.

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THE PRESIDENT.—I wonder whether "domestic deafness" may not be of this functional type. The husband does not hear his wife, or the wife her husband, but each hears anyone else without difficulty.

Dr KELSON.—I recall the case of a lady with catarrhal deafness. She got much better, but on hearing that her favourite child had to be operated on she became stone-deaf suddenly. She regained her hearing after the child recovered.

Vertigo: Radical Mastoid Operation—Mr W. M. MOLLISON.—Male, aged 36. Eight years ago a radical mastoid operation was performed on the left side and there is still some discharge. Granulation present in oval window. The patient is extremely deaf. No spontaneous nystagmus. Caloric reaction normal on both sides. I ask if operation on the left labyrinth would cure the attacks of vertigo?

DISCUSSION.

Dr DAN M'KENZIE.—I had a precisely similar case. I think it a functional case, but the patient cannot work.

Dr DUNDAS GRANT.—I suggest small doses of quinine to quiet the more sensitive of the two labyrinths.

Traumatic Facial Paralysis produced in an Unusual Way—Dr H. J. BANKS-DAVIS.—Boy, aged 8, was climbing a wall, when he fell and was impaled on a fine-pointed iron spike which perforated the tip of the mastoid process and produced instant facial paralysis. Reaction of degeneration was complete, and the face is still paralysed after three months' electrical treatment. Hearing is unaffected.

Traumatic Destruction of One Labyrinth illustrating the "Marking-Time" Test—Dr J. DUNDAS GRANT.—Male, aged 29, fell 20 feet in March 1919, and was unconscious for thirteen days. Deafness almost complete on the right side and slight on the left. All signs point to elimination of the right labyrinth. There is no Romberg symptom, but on "marking time" with his eyes shut he turns round to the right.

Ossiculectomy—Dr J. DUNDAS GRANT.—Female, aged 21, was shown some months ago soon after removal of her ossicles. Before operation she had C.O.M.S., with vertigo and headache. Large perforation of membrana tensa and also of the attic. Cholesteatoma bulged from the latter opening. After ossiculectomy the vertigo disappeared.

CASE II.—A middle-aged male had deafness (right ear) and discharge of two years' duration. Lately, giddiness. Attic disease present. A week after ossiculectomy he reported himself much easier.

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DISCUSSION.

THE PRESIDENT.—Ossiculectomy seems to be a suitable subject for a general discussion. The tympanum of the man looked clean, but there was pus in the ear of the girl. To-day I saw a case in which an assistant removed the ossicles. He used an incus hook and severed the facial nerve. The face is still paralysed.

A Useful Attic Syringe—Dr J. DUNDAS GRANT.—The syringe resembles that of Milligan but is adapted to a U-shaped tube capable of holding 10 minims of alcohol or other liquid. It is provided with an india-rubber tube and glass mouthpiece. The liquid is drawn up into it by suction. I have been impressed by the number of cases of attic disease presenting themselves at the Pensions Clinics.

January 16, 1920.

On Some Anatomical Features of the Vestibule not Previously Recorded—Dr ALBERT A. GRAY.—*Method:* The petrous portion of the temporal bone is sawn across with a fine fret-saw in a plane parallel with the footplate of the stapes. Bone-dust is removed by running water. The preparation is then dehydrated in absolute alcohol, and finally is put into pure zylol. This method shows that the footplate of the stapes and the tissue in the vicinity of the oval window are composed of a mixture of bone and cartilage. The writer thinks that the cartilaginous element in the adjacent portions of the wall of the vestibule has not been described hitherto. The cartilage is probably a remnant of the original foetal cartilaginous capsule of the labyrinth. The islets of cartilage found in the cochlear portion of the wall of the labyrinth are supposed, by some, to be a causative factor in otosclerosis. They probably play a part that is passive rather than active. These preparations also show the deep cleft which passes forwards and downwards from the anterior margin of the oval window, and a small foramen in the outer wall of the vestibule immediately behind the posterior margin of the oval window. So far as I am aware, these structures have not yet been described. In the cadaver, the posterior third of the footplate is rotated inwards, and the anterior two-thirds outwards. This was found in nine out of ten cases examined. The remaining case was particularly interesting, because in it the head and both crura of the stapes had been eroded by caries; hence the stapedius muscle could not exercise any action upon the stapes. It appears probable, therefore, that the stapedius muscle causes a rotation of the stapes round a vertical axis which passes through the footplate at the junction of the middle and posterior thirds. This view is further supported by the fact that the annular ligament is longer at its anterior than at its posterior margin.

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Meningitic Neuro-Labyrinthitis—Drs J. S. FRASER and J. K. MILNE DICKIE.—*Conclusions*:—(1) Meningitic neuro-labyrinthitis is a frequent cause of deafness and deaf-mutism. (2) Deafness due to epidemic cerebrospinal meningitis is certainly due to meningitic neuro-labyrinthitis. Measles and pneumonia may also be followed by meningitis and secondary neuro-labyrinthitis. In acquired syphilis and mumps, lepto-meningitis is of common occurrence and is associated with inner ear deafness, which is probably to be explained by neuritis or neuro-labyrinthitis (no microscopic examination as yet). Certain cases of deafness after influenza and osteomyelitis may also be of meningitic origin. (3) The original source of infection may be in the respiratory tract, parotid gland, genital organs, long bones, or elsewhere. (4) A blood infection (septicæmia) probably in all cases forms the connecting link between the primary disease and the onset of meningitis. (5) Meningitic neuro-labyrinthitis is usually but by no means always bilateral. The onset is usually sudden. Irritative symptoms, such as tinnitus, nystagmus, and giddiness, are often present, but may not be observed owing to the mental condition (coma) of the patient. In epidemic cerebrospinal meningitis and parotitis, deafness usually occurs early in the course of the disease. (6) Deafness due to meningitic neuro-labyrinthitis may be associated with other metastatic lesions, *e.g.*, orchitis, arthritis, mastitis, blindness or paralysis of the oculo-motor nerves. (7) The infection usually passes along the subarachnoid space from the base of the brain into the internal auditory meatus and then along the nerves and vessels to the labyrinth. In some cases the perilymphatic aqueduct is the route of invasion, while in others both paths may be involved. (8) As a rule both the cochlear and vestibular apparatus are affected. Frequently the cochlear apparatus is the one mainly or alone involved; rarely do we have a more or less isolated affection of the vestibular apparatus. (9) The pathological changes producing the deafness may be: (a) Hydrocephalus; (b) changes in the walls of the fourth ventricle; (c) purulent infiltration of the eighth nerve with subsequent descending neuritis accompanied by atrophy of the spiral ganglion and Cortis organ; (d) purulent labyrinthitis which, if the patient lives long enough, is followed by the formation of granulation tissue, and, later, of new connective tissue and bone in the hollow spaces of the labyrinth. (10) The resulting deafness is, as a rule, complete and permanent in the ear (or ears) affected. (11) Vestibular symptoms (loss of balancing and waddling gait) pass off rapidly in adults, but in young children they may last as long as one year. (12) In cases of sudden nerve deafness, with or without vestibular symptoms, lumbar puncture should be performed and the cerebro-spinal fluid examined chemically and microscopically. The Wassermann reaction of the fluid should also be tested and cultures made. (13) Repeated

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lumbar punctures are of use in treatment, especially in cases of deafness due to hydrocephalus. Small doses of potassium iodide and hypodermic injections of pilocarpin have been used in the treatment of meningitic neuro-labyrinthitis, but apparently without success.

DESCRIPTION OF PLATES.

- FIG. 1 (Case I.).—Epidemic cerebrospinal meningitis of about eight days' duration. No labyrinthitis. Horizontal section through right ear, No. 135, $\times 6$ diam. 1, External auditory meatus; 2, adhesion between drumhead and inner wall; 3, new bone formation in drumhead (chalk patch); 4, internal meatus, showing slight meningeal exudate; 5, crus commune (note faulty formation of walls of bony canal); 6, convexity of lateral canal; 7, antrum, with thickened lining membrane; 8, facial nerve. Note that long process of incus is absent; it should be situated between the handle of the malleus and the foot-plate of the stapes which is seen in the oval window. Middle-ear suppuration had evidently been present in childhood in this case.
- FIG. 2 (Case II.).—Epidemic cerebrospinal meningitis of several weeks' duration. Horizontal section through left ear, No. 130, $\times 9$ diam. 1, periosteal bone; 2, lymph space between above and 3, cartilage bone; 4, endosteal bone; 5, meningitic infiltration within arachnoid sheath in internal meatus. In the basal coil on the right of the illustration in the angle next the internal meatus there is some inflammatory exudate in the scala tympani.
- FIG. 3 (Case III.).—Epidemic cerebrospinal meningitis of a few days' duration. Spontaneous nystagmus to the left was observed during life. Horizontal section through right ear, No. 50, $\times 9$ diam. 1, Facial nerve; 2, crista of lateral canal infiltrated with pus (the exudate is streaming through the apex of the crista, and, if the illustration is turned right round, gives the appearance of a volcano in eruption); 3, aditus; 4, purulent and hemorrhagic exudate in perilymph space; 5, the vestibular nerve surrounded by purulent exudate; 6, purulent and hemorrhagic exudate at point of entry of nerve to utricle.
- FIG. 4 (Case III.).—Section 70, $\times 9$ diam. 1, Purulent exudate in helicotrema; 2, exudate in scala vestibuli; 3, same in scala tympani; 4, cochlear nerve with hemorrhagic purulent exudate around; 5, endosteum detached from wall of scala tympani of basal coil (artefact).
- FIG. 5 (Case III.).—Section 175, $\times 9$ diam. 1, Pus in scala tympani; 2, thickened membrane of round window; 3, tympanic cavity healthy; 4, ampullary end of posterior canal with exudate in perilymph space; 5, purulent exudate in niche of round window; 6, exudate at cochlear opening of perilymphatic aqueduct.
- FIG. 6.—E. B., aged 17 months, measles followed by pneumonia and meningitic labyrinthitis. Section 185, $\times 9$ diam. 1, Purulent exudate in helicotrema; 2, tensor tympani; 3, pus in fundus of internal meatus; 4, purulent exudate in basal coil of cochlea; 5, carotid canal.
- FIG. 7.—E. B., pneumonia and meningitic labyrinthitis. Section 185, $\times 38$ diam. 1, Purulent exudate in scala vestibuli—to the left it is lying on upper surface of Reissner's membrane; 2, spiral ganglion infiltrated with pus; 3, scala tympani full of pus; 4, cochlear canal with fibrinous and slightly purulent exudate.
- FIG. 8.—E. B., pneumonia and meningitic labyrinthitis. Section 205, $\times 6$ diam. 1, Incus; 2, external meatus; 3, malleus; 4, Eustachian tube, normal; 5, carotid canal; 6, exudate in scala tympani of basal coil; 7, internal meatus (the nerves have unfortunately been torn out); 8, endolymphatic aqueduct; 9, exudate in perilymph space of crus commune; 10, lateral canal; 11, niche of oval window showing thickened mucosa with some exudate.

FIG. 1.

FIG. 2.

FIG. 3.

FIG. 4.

FIG. 5.

FIG. 6.

FIG. 7.

FIG. 8.

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Sarcoma of Left Middle Ear arising in Eustachian Tube—

Mr RICHARD LAKE.—Male, aged 33. The growth reported on as a spindle-celled sarcoma occupied the whole of the middle ear cleft and in the nasopharynx it was felt as an ill-defined mass involving the mouth of the Eustachian tube. A radical mastoid operation was performed on 6th November 1919, and radium 58 mgr. was buried in the middle ear for twelve hours. There had been no chronic middle ear discharge.

Transplantation of Anterior Half of Masseter Muscle for Facial Paralysis—Mr SOMERVILLE HASTINGS.—Woman, aged 35, had had labyrinthectomy carried out. Three weeks after operation left facial paralysis developed, with some necrosis of bone. The reaction of degeneration was complete. Transplantation operation was performed two and a half years after the labyrinthectomy. A crescentic portion of skin was removed, the left masseter split, the anterior half detached from the jaw, and the lower end of the divided portion stitched with catgut to the tissues of the angle of the mouth. The deformity is reduced and a certain amount of movement of the left angle of the mouth is now possible. The woman has been improved by the operation. She has now much less difficulty with her food. If the temporal muscle is used, it is necessary to bring it over the zygoma, and there must result an unsightly swelling on the face.

Stenosis of the Meatus following Otitis Externa —Mr E. D. D. DAVIS.—Male, with dermatitis for ten years. Stenosis at junction of bony and cartilaginous meatus. Some discharge from middle ear. A conservative mastoid operation was performed and the cartilaginous meatus excised with the exception of a small strip of the anterior wall. A large tube was kept in the meatus and antral cavity for ten days.

Cerebellar Abscess complicated by Thrombosis of the Lateral and Cavernous Sinuses—Mr E. D. D. DAVIS.—Woman, aged 60. C.O.M.S. (right) after measles in childhood. Earache of three weeks' duration, and occipital headache. Coarse lateral nystagmus to right. Weakness of right orbicularis palpebrarum. Marked vertigo on rotation but not on irrigation. Right ear: granulation tissue in the posterior superior quadrant; cholesteatoma; almost complete loss of hearing (right). Operation: antrum deep, contained cholesteatoma with pus under tension. Nystagmus remained, and six days after operation she became unconscious. Opening made through the inner wall of mastoid antrum, but access very limited; bleeding from superior petrosal sinus. Second opening behind the sinus evacuated cerebellar abscess. On eighth day after the second operation, patient had a rigor followed by signs of left cavernous sinus thrombosis. The right cavernous sinus thrombosis

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developed some days later. Both lateral and cavernous sinuses contained suppurating blood clot.

Aspergillus from the Ear—Mr ARTHUR CHEATLE and Mr W. D'ESTE EMERY.—The material was removed from an old operation cavity and was causing pain and discharge. The material was washed in sterile water, and a black nodule was picked out and planted on maltose agar (1 per cent.). I had seven of these cases in private practice in ten months. In one case I was able to prove that the source was the bath water. During the war there had been neglect in cleaning out cisterns.

Columnar-celled Carcinoma arising in Sebaceous Glands or Hair Follicle Ducts—Mr H. J. BANKS-DAVIS.—Man, aged 35, two years ago had a "tumour removed from behind the ear." Intense pain ever since. Tragus red and tender and meatus occluded. Hard swelling over the parotid. Tumour removed along with cartilaginous meatus. Cessation of pain. X-ray treatment.

THE SCOTTISH OTOLOGICAL AND LARYNGOLOGICAL SOCIETY

NINTH MEETING, ROYAL INFIRMARY, EDINBURGH.

June 14, 1919.

President—Dr WALKER DOWNIE.

Discussion on the Prevention of Chronic Ear Disease was opened by Dr LOGAN TURNER. The following conclusions were arrived at:—

1. That an otologist should be attached to each of the large fever hospitals in Scotland.
2. That the medical examination of school children should include a report upon the state of the hearing.
3. That the nurses attached to the various Child Welfare Centres should receive special instruction in the treatment of middle ear suppuration.
4. That each Educational Authority should organise the treatment of adenoids and tonsils in school children, instead of utilising the voluntary hospitals for that purpose.

Epistaxis due to a Leech in the Nasal Cavity—Dr W. T. GARDINER.—Two soldiers were treated by him in Palestine.

Malignant Disease of the Post-cricoid Area—Dr A. LOGAN TURNER (*Journal of Laryngology*, February 1920).

Amyo-trophic Lateral Sclerosis with Bulbar Involvement—Dr A. LOGAN TURNER.—Woman, aged 46, with impaired mobility