If he had had time he would have referred to what might be termed false sensitisations. In these cases sneezing was excited by flour, fine dust from hay, flowers, etc. No specific protein sensitisation existed, but only temporary hyperæsthesia, which made the patient susceptible to various mechanical irritants.

It had been suggested that cases of vasomotor rhinitis could best be investigated by team work. He (the speaker) had had several of his patients very thoroughly overhauled by physicians, radiologists, and other specialists without their being able to elucidate the presence of any abnormal condition beyond a neurosis. With regard to the endocrines it was perhaps as well that this subject had not been introduced into the discussion as there was still so much speculation attached to it.

Dr JAMES ADAM (in reply) said he thought members would find the questions which had not been replied to in this discussion were very fully answered in the articles which had appeared in the *American Journal of Clinical Medicine*, by Drs Haseltine and La Forge; a symposium on the subject was to appear in the June number of *American Medicine*.

With regard to endocrine disturbance, this was due to the toxæmia, which affected the endocrine glands in the same way as it affected the skin and the vagus. Doses of any dust frequently repeated would start asthma in a toxæmic subject.

He had been very pleased to hear Mr Coke's reference to the work of Lumière, who had been engaged upon the nature of anaphylaxis for years; it was most valuable work. To asthmatic patients he (the speaker) gave a mercurial once a week for years, as it helped one to deal with the toxæmia. Golf was a most effective medicine for these people; it was preferable to injections.

THE SCOTTISH SOCIETY OF OTOLOGY AND LARYNGOLOGY

TWENTY-FIRST MEETING, ROYAL INFIRMARY, EDINBURGH.

President—Dr W. S. SYME.

May 23, 1925.

Acute Middle Ear Suppuration (right); Extradural Abscess; Temporal Lobe Abscess; Ventricular Meningitis; Death—Dr J. S. FRASER.—Male, aged 27, had tonsillitis (20.12.23) followed by pain in right ear and discharge. Two days before admission (4.1.24) discharge ceased. Severe frontal headache and vomiting, with irritability; sudden loss of speech, though patient understood what was said to him. (Patient is right-handed.)

Examination revealed no rigidity of neck; no Kernig; pupils equal and reacted to light; no paralysis of eye muscles; no aphasia; hand grasps equal; no pointing error; no spontaneous nystagmus; no

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dysdiadokokinesia. Patient rather emotional; face pale. Temperature subnormal; pulse 96. Tenderness on tapping over right temporal and cerebellar lobes. R.M.T. red and bulging; no pus. Whisper heard at two feet by right ear.

Operation (5.1.24)—No pus in antrum; large extradural abscess in middle fossa (diplo-streptococcus); dura mater here almost normal; not opened. Paracentesis of right drumhead.

6.1.24—Temperature 99.4; pulse 90; headache better; slight neck rigidity. Cerebro-spinal fluid under pressure and turbid (organisms present). Slight facial paresis on side opposite to operation (left). Dura mater opened, but no pus found. 9.1.24—Restlessness; occasional vomiting; temperature 98; pulse 76; later, drowsiness. 13.1.24—Temperature slightly subnormal; pulse 72; patient sleeping well. 19.1.24—Patient allowed to get up for half an hour, but felt tired and complained of severe frontal headache; vomiting; temperature 102; restlessness. 21.1.24—Temperature 102; pulse 64; again facial paresis on left side; drowsiness; retraction of head. Wound opened up; no accumulation of pus between bone and dura mater. Incision of brain followed by profuse flow of turbid cerebro-spinal fluid (streptococci present). 24.1.24—Delirium and death.

Post-mortem revealed an abscess of right temporal lobe which had ruptured into lateral ventricle; red softening and hæmorrhages round the abscess; basal meningitis; corking of cerebellum into foramen magnum.

Dr A. A. GRAY said that the first case of brain abscess upon which he had operated was exactly similar to this, except that there was no extradural abscess in his case. On opening into the abscess a gush of cerebro-spinal fluid and pus escaped. The patient was comatose when brought to the Infirmary. The extraordinary thing was the remarkable temporary recovery which the man made. He improved for the time being, came out of his coma and was comparatively well for about a week; he then developed meningitis which proved fatal.

Dr DOUGLAS GUTHRIE thought that the term "ventricular meningitis" was a little misleading, as the ventricle contained no meninges. Was it to be understood that the meningitis was of ventricular origin?

Dr W. S. SYME (President) said that the case was interesting because a temporal lobe abscess was associated with acute otitis media. The sequence of events also seemed to have been somewhat unusual. On reading the report it appeared that the basal meningitis preceded the abscess.

DR LOGAN TURNER wished to draw attention to the association of temporal lobe abscess with acute middle ear suppuration. The commoner complications were extradural abscess, meningitis, and sinus thrombosis. Again, the presence of two intracranial lesions led to the masking of diagnostic symptoms. The third point which struck him on reading the case was the duration of the meningitis. When the boy became ill he had signs of commencing meningitis, and the illness lasted three weeks.

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Dr J. S. FRASER said that he had used the words "ventricular meningitis" to imply that the abscess had burst into the lateral ventricle. When the temporal lobe was incised, both pus and cerebro-spinal fluid had escaped. The important point seemed to be that the patient did very well for six days. He was allowed to get up on the 19th but, at the end of half an hour, he complained of headache and vomiting and the temperature rose. Probably at that time the infection of the ventricle occurred. He (the speaker) had seen this occurrence once or twice before. It was sometimes difficult to insist upon patients remaining in bed. They felt so well and asked constantly to be allowed to get up. He thought that the surgeon should be more resolute in forbidding this.

Dr W. T. GARDINER mentioned a similar occurrence in one of his cases. He asked how long a patient should be kept in bed after evacuation of a brain abscess.

Dr KERR LOVE said that one of his patients not only got up but went home after seventeen days; he was brought back with meningitis and died.

Dr SYME (the President) said that in these cases the brain suffered considerable damage and would take a long time to recover. There was also the possibility that a second abscess might form.

Chronic Middle Ear Suppuration (left); Temporal Lobe Abscess; Recovery—Dr J. S. FRASER.—Male, aged 28, first seen 27.6.17. Ear discharged for ten years. Conservative treatment ordered and patient asked to return but did not do so. On 15.8.24 he was admitted with history of earache (left) and rigor; discharge stopped; vomiting; headache; irritability and slight delirium.

Tenderness on percussion over left mastoid and temporal region; temperature 102.8; pulse 80; pupils equal and reacting to light; knee jerks exaggerated especially on right side; Babinski positive both sides; no Kernig; no nystagmus; no dysdiadokokinesia. Patient too drowsy to test aphasia; no pointing error.

Operation (16.8.24)—Foul pus in left antrum coming through hole in roof of this cavity; dura mater thickened; vertical incision, brain adherent, large abscess evacuated; gauze drainage. Cerebro-spinal fluid under tension and almost purulent. After operation, cerebro-spinal fluid under less tension and clearer. He can now name various articles. A cigarette drain, substituted for gauze, not acting well. 24.8.24—Patient very drowsy and left pupil smaller than right. Large quantity of pus evacuated and gauze drain inserted. Condition became worse and on 28.8.24, two triangular pieces removed from dura mater and brain so that a large hole was made into the abscess wall.

Steady improvement from this time. 27.4.25—Patient's memory for person's names is returning slowly, but he recalls their faces, etc., readily.

Dr J. S. FRASER said that the main point in this case was the question of drainage. So long as the drainage was attempted through a slit in the

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dura mater and brain, the case did not do well. A triangular hole was then made by removal of dura mater and cerebral cortex, so that two fingers could be passed into the abscess.

Dr EWART MARTIN wished to raise the question as to how long after recovery, patients should be allowed to return to work. In a case operated on by him in 1921, recurrence took place six months later and the abscess was again opened. Shortly afterwards he took a fit of the ordinary Jacksonian type. Three months afterwards a decompression operation was performed and a blood clot removed from the area of the abscess. In three months he worked as a gardener and this entailed a certain amount of stooping. The patient developed another attack of Jacksonian epilepsy. He then acted as a valet, without any stooping, and with no recurrence of epilepsy. Information was desired as to the kind of work these patients should do.

Dr SYME (the President) said the case was interesting because the abscess was on the left side and the naming centre was involved. Further, although the cerebro-spinal fluid was turbid, it was sterile, and therefore the prospect of recovery of the patient was good as far as that was concerned. The question of drainage in connection with brain abscess frequently came up and it was always difficult. With regard to the enlargement of the brain opening, in this case, it seemed to him that Dr Fraser took the right course in making a smaller opening first, until adhesions had formed between the dura mater and arachnoid and the portion of the temporal bone was shut off. He (the speaker) saw danger in making a very large opening into the brain in the first instance, before adhesions had formed.

Dr J. S. FRASER (in reply) said that he was not satisfied with any form of drainage which he had hitherto used in cases of brain abscess. In the first place he employed iodoform gauze, but if a linear incision was made in the dura mater, the gauze was squeezed almost flat. A cigarette drain of gauze or worsted surrounded by rubber dam often failed, and drainage tubes became blocked even when several perforations were made in the sides. Dr Staunton Wishart of Toronto had invented a conical wire basket, the meshes of which were large and allowed the pus from the abscess to drain into the gauze with which the basket was filled.

Aural Bacteræmia—Dr J. S. FRASER.—Male, aged 12, admitted 7.1.24, with earache in and discharge from right ear one week previously; vomiting, but no shivering.

On admission temperature 104.2; pulse 128; slight cough present. Both drumheads pinkish grey and bulging; mastoid tenderness on right side only. Tongue furred but moist; tonsils enlarged and adenoids present; middle-ear deafness; whisper heard by both ears.

Operation (right ear); mastoid cells inflamed but practically no pus (streptococci present); sinus and dura mater of middle fossa normal; no pus in antrum. Paracentesis performed; wound left open; cerebro-spinal fluid under increased tension, but clear. Blood culture gave pure growth of streptococcus hæmolyticus.

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8.1.24—Patient had a bad night; delirious; temperature, A.M. 99.4, P.M. 104. Slight retraction of head. Second lumbar puncture, 50 c.c. drawn off, clear fluid. Dr Traquair reports moderate œdema of optic papilla on each side; no muscular paresis. Cough troublesome. 9.1.24—Condition the same. Fifty c.c. anti-streptococcic serum given intramuscularly; chloral and bromide. 10.1.24—Serum repeated; wound dressed; good reaction. Paracentesis of left drumhead performed. Blood culture still positive. 13.1.24—Condition improved, though temperature still rather hectic and rising to 104 at night. First dose of anti-streptococcic vaccine given. Pain in right side of chest; small amount of blood-stained fluid withdrawn. 18.1.24—Temperature still rising—high at night and not normal in morning; pulse 112 to 120; pneumonia present at right base (fluid withdrawn from pleural cavity shows abundant pus cells and streptococci). Herpes on lips. 25.1.24—Temperature has come down by lysis. 2.2.24—Needle again inserted into chest and pus obtained (streptococci present). 8.2.24—Temperature varying between 98 and 101; gradual recovery.

Dr SYME (the President) thought that probably a number of these cases passed unrecognised, and it was only by examination of the blood that one realised that one was dealing with an aural bacteræmia, which necessitated opening of the cells and antrum.

Dr SOUPER asked whether in this case the vaccine which was given was made from the patient's own organisms. The anti-streptococcic serum did not appear to have any effect, but after the vaccine was given the condition seemed to improve considerably. He had had a similar case in which both mastoids had to be operated upon, one after the other; no pus was found, but a condition of acute osteitis in the mastoid. A swab taken from the tympanic antrum gave a pure growth of streptococcus. After operation the condition was extremely serious. The patient had high fever, and large doses of anti-streptococcic serum produced no effect at all till a vaccine was made from his own organisms; this had an immediate effect. Unfortunately, after a fortnight, he developed high temperature again and became seriously ill, and on having recourse to the autogenous vaccine, the temperature subsided. Ordinary serum in these cases did not seem to do nearly so much good as an autogenous vaccine.

Dr W. T. GARDINER said he had exhibited serum in a considerable number of these cases. He was now in doubt as to whether it had any effect whatever. He believed that immuno-transfusion, recently mentioned by Mr Jenkins at the Section of Otology, was a better line of treatment and one which he would endeavour to carry out should another case arise.

Dr J. S. FRASER (in reply) said that he agreed with Dr Gardiner that the polyvalent anti-streptococcal serum did little or no good. The vaccine used was an autogenous one. The patient's temperature, however, remained hectic in spite of the vaccine, and pneumonia developed, with a certain amount of empyema. The child had plenty of vitality and was able to overcome the infection.

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Societies' Proceedings

Chronic Middle Ear Suppuration; Cholesteatoma; Latent Labyrinthitis; Cerebellar Abscess; Death—Dr J. S. FRASER.—Male, aged 9, seen 26.8.16, with discharge from left ear for two years; large central perforation of left drumhead; enlarged tonsils and adenoids removed; conservative treatment of ear.

On 19.11.24 (eight years later) patient seen with pain in, and increased discharge from, left ear after influenza. Temperature normal; no sickness or giddiness; tender, fluctuating swelling over left mastoid; polypus in left meatus; complete deafness in left ear; no spontaneous nystagmus; no Rombergism: rotation to left produced more marked nystagmus than rotation to right; cold syringing of left ear for five minutes produced no nystagmus; no recent history of symptoms resembling an attack of labyrinthitis.

Operation (20.11.24)—Large subperiosteal abscess; enormous cholesteatoma in mastoid and middle ear; sinus exposed, with greyish granulations; ossicles absent; lateral canal eroded but no fistula; facial nerve exposed by disease; labyrinth not opened. Posterior wound drained. 21.11.24—Facial paresis on left side; first dressing, profuse purulent discharge. 1.12.24—Facial paresis passed off. 6.12.24—Vomiting but no giddiness, nystagmus, headache, or neck rigidity. Temperature 97.4; pulse 108. 7.12.24—Patient again vomited. Temperature 96.6; pulse 60. Patient apathetic; no aphasia; grip of left hand weaker than right; nystagmus to left; patient lies curled up with head bent to sound side; dysdiadokokinesia present. On sitting up, patient falls over to left. Œdema of optic discs, especially left. Second operation—Neumann's labyrinth operation performed; bone very soft; dura mater opened internal to sinus and large foul-smelling cerebellar abscess evacuated; gauze drainage. 8.12.24—Patient comatose; abscess explored and considerable gush of pus escaped; breathing stopped, but after artificial respiration it recommenced. Death twelve hours later.

Post-mortem—No meningitis; well-marked pressure cone at base of brain; three abscess cavities found in left lobe of cerebellum, only one of which had been efficiently opened. (Pus from the abscesses showed diphtheroid bacilli and streptococci.)

Dr J. S. FRASER said that the feature in this case was the latent labyrinthitis. The labyrinth should have been opened at the time of the first operation, but in the absence of any recent history of giddiness, vomiting, etc., the case was regarded as one of spontaneous cure of the labyrinthitis, and therefore as non-infective. He doubted very much whether that was so. It was the second case which he had had in which, while one cerebellar abscess was successfully opened and drained, there were others which had not been evacuated (*Journ. Laryng. and Otol.*, 20, vol. xxvii., 1912, p. 198).

Dr A. A. GRAY asked Dr Fraser about the pathway of infection in this

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case. Was it by way of the internal auditory meatus or by way of the aqueduct of the vestibule and saccus endolymphaticus? If by the internal auditory meatus, the absence of meningitis was very striking.

Dr LOGAN TURNER wished to draw attention to the history of influenza in these cases. The question arose as to whether the symptoms regarded as influenzal might not in reality be due to the onset of the intracranial trouble.

Dr W. S. SYME (the President) said that the question of labyrinthitis and the fact that Dr Fraser held his hand in this case reminded him that, several years ago, operating on the labyrinth was perhaps more popular than it was to-day. Previously the pendulum had swung to the one extreme. Some of these cases died and some were cured, and those who had the misfortune to have the fatal issues after operating on the labyrinth thought they had done too much and hesitated in other cases to do anything more than operate on the mastoid. He thought we should have some more definite rule in these cases. The rule at one time was, if there was a suppurative condition in the labyrinth, it should be opened at the same time as the mastoid operation was performed. If Dr Fraser had done so in this case, it was possible that the issue might have been different.

Advanced Intrinsic Cancer of Larynx; Preliminary Gastrostomy and Tracheotomy; Excision of Larynx—Dr J. S. FRASER.—Male, aged 42, first seen 12.12.24, complaining of hoarseness for seven months; no dysphagia, but slight breathlessness on exertion; some loss of weight.

Marked dental sepsis; indirect laryngoscopy shows ulceration involving true and false cords on left side; left side of larynx is fixed.

20.12.24—Piece of cord removed and reported on as "rapidly growing squamous epithelioma." 23.12.24 — Local anæsthesia; gastrostomy by Mr J. W. Struthers; tracheotomy under local anæsthesia. 6.1.25—General anæsthesia through tracheotomy tube. Excision of larynx. Usual T-incision; larynx skeletonised; trachea cut across; larynx raised, separated from hypo-pharynx and excised; opening in pharynx stitched; no attempt made to unite muscles; horizontal part of incision closed with stitches and the cavity in the neck packed with gauze; tracheotomy tube retained. Packing of wound and dressings changed frequently. 6.3.25—Artificial larynx (Tapia's) tried to-day. Patient could produce some voice. Attempt to be made to close external pharyngeal opening.

Dr DOUGLAS GUTHRIE said that he had tried rectal anæsthesia in several nasal and sinus cases and in two it was very satisfactory indeed and rather interesting. The drawback to rectal anæsthesia was that it gave great trouble to the nurse afterwards, as it was essential to wash out all trace of ether from the bowel.

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Dr JAMES ADAM asked Dr Fraser what he did with the stump of the trachea. Did he make a musculo-cutaneous flap to fill up the cavity in the front of the neck? The details were rather important. The gastrostomy was done, he (the speaker) supposed, in order to prevent food getting into the lungs, as would certainly have happened in this case.

Dr SYME (the President) said that he had used rectal anæsthesia in several cases of operation for malignant disease of the pharynx and larynx, and in a case of double frontal sinus, and certainly it was very comfortable to work with. He was much obliged to Dr Martin for his suggestion, that he should use the method in cases of bronchiectasis.

Dr J. S. FRASER (in reply) said that the usual T-shaped incision was made and the tissues and muscles dissected off, *i.e.* the larynx was "skeletonised" as the Americans say: the trachea was cut across and the larynx removed from below upwards. More of the mucous membrane at the upper aperture of the larynx might have been retained, but the cancer was an extensive one and he was anxious to have a sufficient margin of healthy tissue. Had more mucosa been retained he might have been more successful in sewing up the opening in the pharynx at the end of the operation. The preliminary gastrostomy was done from the point of view of avoiding pneumonia.

Epithelioma of External Acoustic Meatus; Radical Mastoid Operation with Skin Graft; Recovery — Dr J. S. FRASER.—Male, aged 55, first seen 4.6.24, with history of pain in right ear for two and a half years, worse at night; pain shoots all over right side of head; discharge present for six months; no deafness.

Examination showed red, irregular swelling of roof of right external meatus, with slightly granular surface; lower part of drumhead could be seen below the swelling; on catheterisation, air entered right tympanic cavity without any perforation sound. Whisper heard by right ear at 10 feet. No enlarged glands around auricle. Operation advised but refused.

13.8.24.—Meatal swelling increased. Operation consented to.

18.8.24.—Local anæsthesia; piece of tissue removed for microscopic examination and reported on as squamous-celled carcinoma of a slow-growing type. 23.8.24—Whole of cartilaginous and membranous meatus dissected out as a sleeve. The disease had penetrated the cartilaginous meatus and was in contact with the bony walls. The upper part of the drumhead appeared to be involved. Radical mastoid operation performed; free removal of bone; capsule of mandibular joint exposed; Koerner flap cut; cavity syringed out and skin grafted. 26.8.24—First dressing; no fever; wound healed; operation cavity satisfactory. Progress satisfactory, but hearing in right ear reduced to conversation voice at 3 feet. 30.3.25 — Operation cavity still satisfactory; smooth and dry.

Case for Diagnosis—Dr J. S. FRASER. — Female, aged 50, complains of headache and pain in the region of the left ear.

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Examination showed drumheads indrawn and opaque; nose roomy on both sides; watch not heard on mastoids but heard on contact by both ears; bone conduction lengthened; Weber to left (worse) ear; Rinne negative left ear, positive right ear; C 32 and C 64 heard by right ear, not by left. There is great broadening of the alveolar margin of the upper jaw on both sides but especially on the right side. Patient states that this has been present for fifteen years. On trans-illumination, frontals and antra dark. Radiograms show apparently the maxillary antra filled up by bone; in the lateral radiogram the sphenoidal sinus also appears to be filled up; frontal sinuses absent.

Dr GAVIN YOUNG said that with this new formation of bone he would like to have seen a better skiagram of the sella turcica.

Dr JAMES ADAM thought that the case was similar to one which he showed of osteofibrosis. Dr Fraser's case seemed to involve the whole of the skull.

Dr J. S. FRASER had discussed the case with Mr Struthers, who had recently published an elaborate paper on the subject, with Dr James Dawson of the Royal College of Physicians' Laboratory (*Edin. Med. Journ.*, October 1923). Mr Struthers seemed to think that nobody really knew the causation of osteofibrosis. In this case the process was rather more extensive than in some others. The osteitis fibrosa did not affect merely the upper jaw, but also the frontal, ethmoid, and sphenoid. This accounted for the cloudiness of these areas in the skiagram. The patient also suffered from otosclerosis.

Mr J. H. SHAW mentioned that he had seen a similar case where there had been a good deal of subperiosteal new bone formation. The case occurred in one of the surgical clinics at the London Hospital, and the treatment advised was stripping up of the periosteum and removal of the spongy new bone by means of a sharp spoon.

Dr W. S. SYME (the President) had noticed that the patient complained that her sight was failing and that she was also becoming deaf.

Dr W. T. GARDINER said he thought that it would be difficult to get a better radiogram in this case because the whole skull was affected.

Case for Diagnosis—Dr J. S. FRASER.—Male, aged 57, miner, has had periodic attacks of giddiness and vomiting for five years. For three years he has had noises and deafness in the left ear. Medical examination, including neurological examination, negative. Wassermann negative; ophthalmic surgeon reports slight opacity of lens, but fundus normal.

Examination. — Dental sepsis present; drumheads practically normal; watch heard by right ear but not by left. Weber lateralised to bad ear (?): Rinne absolute negative left side, positive right side; with noise box in right ear, patient quite deaf. Slight spontaneous nystagmus to both sides, most marked to right; Romberg test negative; no pointing error; cold syringing, right ear, produced nystagmus in the

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normal time; cold syringing, left ear, for two minutes produced no nystagmus. Radiogram appears to show dilatation of internal acoustic meatus on the left side. Galvanic test of right (healthy) ear produced nystagmus to left, whereas when the same test was applied to left ear there was no reaction. Is case one of acoustic tumour on left side?

Dr J. S. FRASER said he wished to know whether the members present were of opinion that the case was one of acoustic nerve tumour and whether he would be justified in operating upon it by the translabyrinthine route.

Dr LOGAN TURNER suggested that Dr Fraser should report the case at the next meeting of the Society.

Dr W. S. SYME (the President) thought that the opinion of most of those who saw the man was that the case was one of tumour of the internal auditory meatus and that the risk to the patient of operating through the labyrinth was not so great as in the case of a tumour of the cerebello-pontine angle. He had operated on a cerebello-pontine angle tumour through the labyrinth, and certainly it was a very direct way to reach it; a tumour of the internal auditory meatus was not so deeply placed. In operating through the labyrinth, however, one could not be certain of dealing with an aseptic route. On the other hand, if a flap was raised behind the ear, asepsis could be assured.

Case for Diagnosis—Dr J. P. STEWART (introduced by Dr J. S. FRASER).—Patient brought up by mother because of occasional attacks of earache on right side, also a swelling in front of the right ear.

Examination.—Swelling in front of right ear appears to be a supernumerary auricle beneath the skin. The right drumhead showed a catarrhal condition; adenoids present.

Dr A. A. GRAY agreed with the view that this was a supernumerary auricle, but it did not show prominently above the skin. It felt cartilaginous to the touch.

Dr JAMES ADAM said he had formed the impression that it was a piece of cartilage.

Dr SYME (the President) said that a supernumerary auricle was the remains of the first branchial arch, so that it did not matter very much whether the condition was named a branchial arch or a supernumerary auricle.

Dr SOUPER asked if it was suggested that the tumour be removed, because he had had a case three years ago in which he dissected out a similar growth and sent it to the pathologist. The latter reported that it contained several epithelial rests and one of them was beginning to proliferate. The moral was, that such tumours should be removed, for at any time they might become malignant.

Observations on two types of Pathological Changes on the Palate associated with the constant wearing of Upper Dentures—Mr J. D. LITHGOW.—During the past two years I have seen a number of cases where patients complained of some obscure

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but certain well-defined pains and neuralgia, not sufficiently troublesome to make them come to hospital for advice. The pain in most cases is radiating, more or less constant, sometimes referred to the malar region, sometimes to the occipital and to the parietal region. In all these cases I have found two types of palatal condition. In some cases there were diseases which might be accountable for the pain, but in many there was no condition to account for it, and, when local remedies were applied, the pain disappeared.

Patients wearing artificial dentures may be divided into three groups: those who have a permanent denture put in by the dentist; it remains there unless it is swallowed and is removed by some of our colleagues. Food collects and is not removed. Another class of patient is that in which the denture is taken out at night to be cleaned, put back and left in position during the night. In the third group the denture is taken out at night, washed and put in a tumbler of water. In the third group pathological changes do not occur.

There is a certain overlapping of types, but the first two are very definite. In the first, where the denture remains permanently, the dentist, if asked, will say that he always advises the patient to take the teeth out and clean them. The dental theory is that if the plates do not fit the patient, they will eventually do so if they are kept in long enough; it is an excuse for ill-fitting teeth. In that class of patient, if the plate is examined, a large collection of debris of various sorts, the remains of previous meals, will be observed, and on the palate, a thick spongy carpet of granulation tissue with pus round it. It may be thin or it may be very thick. In the second type, when the plate is removed, there is found a fine, fibrous, smooth palate, and microscopically, a thin squamous epithelium with a fibrous membrane underneath.

These are the two types and the symptoms associated with them, and the patient's habit is known from the appearances observed. There is the patient who says, "I sometimes take them out at night." The advice to him should be, "Take out your teeth, wash them and put them in a tumbler of cold water, and the neuralgic pains will disappear"; and to the other class of patient, "Don't sleep with your plate and the pains will disappear."

Chronic Frontal Sinus Suppuration (left) with acute Exacerbation—Dr W. T. GARDINER.—Male, aged 59, after various intranasal operations had Howarth's operation performed on the left frontal sinus in May 1924; he apparently did well until March 1925, when he reported with a sinus at the inner end of the original incision discharging thick, foul-smelling pus. The X-ray photograph showed definite involvement of both sinuses.

Operation wound was opened up again and the sinus was found

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to extend far out almost to the external angular process, and contained chronically swollen mucosa and pus. The anterior wall was removed and remains of the floor were completely removed. Towards end of operation a large opening was found in the inter-sinus septum. The incision, therefore, was carried across the root of the nose and along the right eyebrow. The anterior wall and floor of the right sinus were also completely removed along with the ethmoid which was diseased.

Dr LOGAN TURNER said he had the privilege of seeing Dr Gardiner operate on the frontal sinus. He (the speaker) did not think that Dr Gardiner should feel that the Howarth operation had not been successful in his hands from imperfect technique on his part. It was possible that the infection had been kept up in the left sinus through the hole in the intersinus septum, the right cavity thus constantly infecting the left. It was stated, however, in the notes of the case, that remains of the floor were completely removed at the second operation.

Dr J. S. FRASER asked if any members had experience of the Howarth operation. He himself had not, but on theoretical grounds he had some doubt about the good results to be obtained, at any rate in chronic cases. The mucosa of the anterior and posterior walls remained and must, for a time at any rate, continue to secrete pus, while the drainage into the nose might not be very efficient.

Dr SYME (the President) said that he had done a number of Howarth operations, while previously he had used the Killian method when an external operation was required. He (the speaker) had never liked the internal operation. Lately he had operated by Howarth's method and liked the operation, the results being quite as good as in the Killian method. It was very necessary to remove the floor right back, leaving no blind areas. It was necessary to make certain that no ethmoid cell was left and that the opening into the nose was made as large as possible, and that it was maintained by leaving the tube in for at least one week.

Dr W. T. GARDINER (in reply) said he was doubtful, after two recent experiences, as to whether Howarth's operation was suitable for very advanced cases. He had operated on two, where the mucous membrane was very greatly diseased; he had performed Howarth's operation, but, later, had had to do an obliterative operation; he had carried out the operation exactly according to Howarth.

Chronic Middle-Ear Suppuration (right); Radical Operation; Exacerbation of latent Cerebellar Abscess; Operation; Jugular Bulb Thrombosis; Operation; Death—Dr W. T. GARDINER.—Patient first seen in consultation, 10.1.25, with acute exacerbation of a chronic middle-ear suppuration with polypus formation. Radical operation performed 14th January. Stitches removed on the fifth day. On the tenth day patient became drowsy, temperature 97°, pulse 58, continuing for two days. There was nystagmus and double vision; he vomited occasionally. Wound opened up; cerebellar dura mater exposed; lateral sinus placed far

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forward; cerebellar incision internal to the sinus and a large chronic abscess opened. Great difficulty experienced with drainage owing to position of sinus. Four days later decided to obliterate sinus and to improve the drainage by making the opening in the cerebellar dura larger. 1st February, temperature of a septicæmic character, some shivering and sweating. The pus from the cerebellar abscess had infected the bulb. The jugular vein was exposed in the neck, opened, and found full of clot and the bulb washed through. For a time he improved, the temperature again settled, but drainage of the abscess was always difficult. Patient died, 10th February.

Carcinoma of Left Vocal Cord—Dr W. T. GARDINER.—Male, aged 67, with hoarseness for three months; for over a year previously there have been occasions when he has become hoarse when he had to speak much.

Examination of the larynx showed the left vocal cord with a swelling which seemed more below the cord than upon it; certain amount of limitation of movement; swelling dark red in colour and much congested at the base. Laryngo-fissure performed on 19th July 1924, rectal anæsthesia. Recovery uneventful.

Case for Diagnosis—Dr W. T. GARDINER.—Male, first seen 9.4.25, with the history of hoarseness for seven months; for the last four weeks he had been worse following a cold.

Appearances from indirect laryngoscopy—the epiglottis slightly infantile (the larynx is easily examined); the right cord along its anterior two-thirds is the seat of a fringy growth, pearly white in colour. On phonation this is in contact with the left cord, the inner edge of which is slightly roughened due to contact.

Dr LOGAN TURNER said that the appearance in this case reminded him of a case of keratosis laryngis which he had published a number of years ago (*Edinburgh Med. Journ.*, 1906).

Dr SYME (the President) advised examination with the suspension apparatus and the removal of a much greater portion than Dr Gardiner had taken away. His (the speaker's) impression at the present moment was that the case was not malignant. It looked very soft, apparently softer than a malignant growth. He would not feel justified in making a diagnosis at the moment.

Aneurysm of the Thoracic Aorta with Stricture of the Œsophagus; Rupture of the Aneurysm during the Examination—Dr G. EWART MARTIN.—Male, aged 42, with a history of difficulty in swallowing for ten days. Admitted to hospital emaciated, not having swallowed anything for four days. Physician's report—No clinical signs of aneurysm. X-ray report—Tumour at lower end of œsophagus. Œsophageal examination; at 36 cm. the œsophagus seemed to end; no ballooning; no attempt to pass the œsophagoscope

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lower down. At the examination, the tumour suddenly appeared to grow bigger; the tube was removed, but there was a rush of blood through the tube. Patient collapsed and succumbed about 1¼ hours later.

Post-mortem showed a large aneurysm of the thoracic aorta, eroding into the œsophagus, which had ruptured over the dorsal vertebræ, probably owing to the position during the examination and the stretching of the œsophagus. The aneurysm had been leaking into the walls of the œsophagus for some time.

Further history obtained later by patient's own doctor dated the origin before 1918, when the patient complained of neuralgia in the back.

Tumour of Tonsil for Diagnosis—Dr G. EWART MARTIN.—Male, aged 61, had a feeling of something in the throat for three months; worse during week before examination, when he had some attacks of sickness due to a tickling at the back of the throat. On examination there was seen a large pedunculated tumour growing from the left tonsil, hard to touch, with slight patches of necrosis on the surface. Tongue protruded normally; right tonsil normal; no glands to be felt; nasopharynx normal; no glands palpable in any other region; left tonsil dissected out. Pathological report—Neoplasm composed of lymphoid tissue showing mitotic changes not altogether resembling a lympho-sarcoma. Further diagnosis as yet indefinite.

Dr EWART MARTIN said that there were still no glands to be felt anywhere. The first pathological report stated that the case was one of aberrant Hodgkin's disease, though now it was thought to be probably sarcoma. With this diagnosis, should the glands in the neck be removed at once?

Dr SYME (the President) said that the tumour appeared to be suggestive of sarcoma, and he thought that Dr Martin should remove it by diathermy and leave the glands. If the glands became enlarged, they should be dealt with.

Rabbit-bone removed from Œsophageal Abscess drained into the Œsophagus—Dr G. EWART MARTIN.—Female, aged 50, gave a history of sudden pain after swallowing soup; pain not extreme; she got worse next day. On following day examined by indirect method. Swelling seen low down on posterior wall of hypopharynx. This was examined by the direct method and an abscess found extending down the posterior wall into the œsophagus about 1¼ inches in length. This was incised and a large amount of pus evacuated, but no foreign body found. Patient made a quick recovery, but three weeks afterwards had a recurrence of pain. On examination, the abscess had recurred slightly lower down in the œsophagus. Again incised and incision carried down below abscess,

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and in the mucous membrane at the lower end of the abscess a large rabbit-bone was found completely buried. This was removed and patient made a good recovery.

Complete Upper Denture removed from Upper End of Œsophagus—Dr G. EWART MARTIN.—Male, aged 72, admitted to hospital with a history of having swallowed his false teeth while drinking tea. Patient showed laboured breathing and was very cyanosed. On examination, a complete upper denture was found in the mouth of the œsophagus, pushing the trachea forwards and partially obliterating it. Tooth-plate had to be partially rotated before removal was possible. Patient had a right cerebral hæmorrhage and developed broncho-pneumonia four days after the operation, and died.

Epithelioma of Larynx; removal by Laryngo-fissure—Dr DOUGLAS GUTHRIE.—Male, aged 65, had suffered from hoarseness for two months. This was the only symptom and it varied from day to day but never disappeared. Wassermann reaction negative. Laryngoscopy revealed a white, warty growth occupying the central third of the left vocal cord, which was slightly restricted in movement. Diagnosis was not confirmed by microscopy until after operation. *After preliminary dental treatment (extraction) he was admitted for* operation.

Operation on 6th March 1925. Local infiltration of ½ per cent. novocain coloured by methylene blue. Tracheotomy; chloroform then administered and laryngo-fissure performed by usual method. Thyroid cartilage ossified; no portion of it removed, but growth widely excised. Bleeding slight. Tracheotomy tube removed next day.

Microscopic section; squamous epithelioma, which does not extend to edges of portion of tissue removed.

Deviation of External Nose to show result of Operative Treatment—Dr DOUGLAS GUTHRIE.—Patient, aged 18, complained of frontal headache and nasal obstruction, also nasal deformity. No history of injury; the nasal bones as well as soft parts were deflected and the deflection of septum was extreme. No adenoids were present, but "posterior ends" were much enlarged.

Operation consisted in submucous resection of septum, removal of posterior ends, division (by chisel used intranasally) of ascending process of right maxilla and excision of wedge of bone on left side. Nose thus rendered freely mobile, replaced in mid-line.

When soft parts are alone involved, the septum operation is sufficient to cure the deformity. In the present case, the bony framework of the nose was also affected.

Exhibitor would like to hear opinions of members regarding the best operation for such cases.

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Dr SYME (the President) said that one hoped, as a rule, by correction of a deflection of the septum, if severe, to make the external nose straight. He had never felt justified in performing an operation of the kind described by Dr Guthrie.

Dr HOWIE thought that the result was a very excellent one.

Dr DOUGLAS GUTHRIE (in reply) said that, in the vast majority of cases, submucous resection of the septum was quite sufficient to cure the deformity of the external nose; but in this case the nasal bones and bony part of the nose were extremely deviated and would not have returned to normal position without division of bone as described. It was not possible to remove the posterior ends until the septum had been resected. The operation was not so very formidable. It consisted in division of the main support of the nose, the ascending process of the superior maxilla. When that was divided the nose could be taken and moved about quite freely, because the remaining attachments were simply sutures or soft bone such as the lachrymal. The edge of the pyriform aperture was exposed by a small incision within the nose. A bifid-ended chisel was then placed against the bone and the bone divided on both sides. On the side from which the deflection sprang, a wedge of bone was removed, so that, on mobilising the nose, it returned to the middle-line. It was not a difficult operation, but was rarely necessary.

Recent Cases of Acute Mastoiditis in Children, showing Result of Immediate Suture of Operation Wound, following the use of B.I.P.P.—Dr DOUGLAS GUTHRIE.—The method has been employed at the Royal Hospital for Sick Children in 142 cases during the past five years.

Dr LOGAN TURNER wished to ask Dr Guthrie how many failures he had had in the series. He (the speaker) did not attempt primary union in the Schwartze operation, as he was not yet convinced of the wisdom of the procedure.

Dr JAMES ADAM said that the procedure was very satisfactory, but in the last case on which he operated, the boy, about ten days or so afterwards, took an acute rise of temperature. It came down for a few days and again went up; again it subsided, and now he was practically well. There were occasional risks, against which one had to guard and be prepared to remove stitches.

Dr DOUGLAS GUTHRIE said he had been asked how many failures he had had. He would say that in 85 per cent. of cases there was first intention without any trouble; and in the remaining 15 per cent. of cases, some breaking down; very seldom, in a very small percentage (perhaps 1 per cent. or less) the entire wound broke down. He had never had any serious trouble or anxiety. He thought that one important point was to prepare the bone cavity by means of rectified spirit.

Fibroid Tuberculoma of the Tonsil—Dr DOUGLAS GUTHRIE.—Male, aged 30, awoke one morning in December 1924, with a sensation as of foreign body in the throat, and a constant desire to swallow. He examined his throat and noticed a swelling of the right tonsil.

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The symptoms continued until he was seen by exhibitor on 6th February 1925. The swelling was quite painless and only caused a feeling of discomfort.

On examination, the right tonsillar fossa was seen to be occupied by a smooth, hard mass, pale and waxy in appearance, and the faucial pillars, especially the posterior pillar, presented the same appearance. The left tonsillar fossa was empty, there being no tonsil apparent on naked-eye examination. The patient was a healthy man, who had never suffered from tonsillitis, and he had no chest symptoms. No enlarged glands were palpable in the neck. Wassermann reaction was negative.

On 14th February 1925, the tonsillar mass was dissected out under general anæsthesia with the diathermy knife. Apparently the tumour was limited by the capsule of the tonsil, and was the size of a large walnut. Microscopic examination showed chronic fibrosis with numerous tuberculous deposits of typical appearance.

Dr SYME (the President) said that sometimes tuberculoma of the tongue was observed, but not tuberculoma of the tonsil.

Dr GUTHRIE (in reply) said that he had not been able to find in literature any account of tuberculoma of the tonsil.

Demonstration of a useful Method of Immobilising the Temporal Bone for Operative Practice—Dr DOUGLAS GUTHRIE.—All who have taught operative surgery of the ear are agreed that the temporal bone cannot be satisfactorily held in a vice. This method, described by Passow and Klaus in their recent book, has been found excellent. The fresh temporal bone is preserved in plaster of Paris poured around it in a wooden mould. After the block has set, the bone is placed in a framework of the same size and clamped to the bench.

Lupus of Tongue—Dr JAMES ADAM.—Male, aged 23. The disease began outside nose nine years ago. Patient did not notice condition of tongue until it was pointed out to him, two months ago.

Nasal alæ and point of nose gone; large perforation in septum; alveolar mucosa affected; tip of epiglottis lost; dorsum of tongue in its posterior two-thirds and for nearly an inch on each side of mid-line is the seat of soft nodules; upper front teeth very septic and loose. Patient is a heavy cigarette smoker.

Loose teeth have been removed. It is proposed to treat tongue by diathermy.

Dr JAMES ADAM said he had previously seen only three cases of tuberculosis of the tongue. They were all ulcerous. With regard to light treatment, he had not yet had an opportunity of trying it, but he thought that it did not give results so quickly as diathermy.

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