# SOCIETIES' PROCEEDINGS

## PAPERS READ, CASES SHOWN AND DISCUSSION THEREON AT SILVER JUBILEE MEETING OF SCOTTISH OTOLOGICAL AND LARYNGOLOGICAL SOCIETY HELD IN THE ROYAL INFIRMARY, EDINBURGH

**November 16th, 1935**

1. **Some Impressions that Remain.**
—Dr. A. Logan Turner.

The paper is published in full in this issue of the *Journal of Laryngology and Otology*, Vol. LI, No. 3, pp. 141-9.

2. **A Consideration of Nine Cases of Gradenigo's Syndrome, including some remarks on Petrositis.**
—Dr. R. B. Lumsden.

The paper is published in full in this issue of the *Journal of Laryngology and Otology*, Vol. LI, No. 3, pp. 150-66.

Discussion

Dr. J. S. Fraser said he wished to thank Dr. Lumsden for his paper, because he thought it advisable that we should if possible have cases in a series. He knew it was very tempting to show and publish individual successful cases. He was sure, however, that if any of the younger members of the Society cared to look through and abstract single cases in the *British Medical Journal*, the *Lancet* and the *Journal of Laryngology* over a period of say ten or twenty years, he would arrive at a comparatively high figure as regards the percentage of successful cases not only of Gradenigo's Syndrome but also of otitic blood infections, brain abscess and even meningitis. If, on the other hand, the same abstractor would take the trouble to look up those articles which record a consecutive series of cases in a certain hospital (or operated on by one surgeon) in Körner's *Otitische Erkrankungen*, in Denker and Kahler's Textbook or even in Dr. David Maxwell's paper (*Journal of Laryngology and Otology*, Vol. XLIV, 1929, 105), he would find that he got a very different figure with regard to the percentage of recoveries: in other words, we are all apt to put our best cases forward. When Dr. Lumsden



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goes over his series he finds that of nine cases, four died. He (Dr. J. S. Fraser) for one did not think that the mortality of Gradenigo's Syndrome was so high.

Dr. Fraser said it was not altogether easy to remedy the state of affairs in which successful cases were recorded and unsuccessful ones were overlooked. Our livelihood depends on our private practice and not on our hospital work. Naturally in the present state of rivalry and competition we want to make as good an appearance as possible. He did not suppose that many present would agree with him but he sincerely hoped that in the future specialists would be paid adequately for their hospital work and that they would have efficient clerical assistance. They should have this assistance not only in the hospital but also in the reference library, where there should be a trained librarian who would give them references to the important papers on the subject at which they were working. He believed that under these circumstances discussions would be more accurate and informative because they would arrive at a more correct idea than that which prevails at present regarding the gravity of intracranial complications.

Dr. GAVIN YOUNG also thanked Dr. Lumsden for his excellent paper and said he would like to join with him in emphasizing the fact that in this very distressing condition it is not necessary to have an abducens paralysis. In a case he (the speaker) had in June of this year the condition was ushered in by a transient facial paresis following an acute suppurative otitis media. Homolateral temporal pain was a marked feature. It was not necessary to go into details but he opened up the mastoid twice and in spite of this the patient died of meningitis. There was no abducens paralysis in this case but it was quite definitely, in retrospect, a case of petrositis.

Dr. I. SIMSON HALL remarked that Dr. Lumsden had brought out very clearly the importance of periodical reviews such as that which he had presented that day. These cases are so few in practice that it is difficult for one worker to see a sufficient number of them to acquire familiarity with this form of infection. That there may be great difficulty in its management was emphasized in the case quoted by Dr. Lumsden, in which apparent improvement was taking place before the onset of the final and fatal phase. He, Dr. Hall, felt greatly indebted to Dr. Lumsden for this careful and interesting study.

Mr. DONALD WATSON said he had a case last year of a man who had an acute mastoiditis and his temperature did not drop and he had bad headache in the parietal region. Every day it came on about 4 o'clock. He (Mr. Watson) was very worried about this case. He opened it up once and found nothing. It still went on and he opened it up again and then he found a little



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necrosis of the under surface of the petrous. He dealt with that, evacuated half a drachm of pus, drained the region and the patient recovered. There was no paresis at all, just this unilateral headache.

## CASES

CASE III.—**A.O.M.S.: Gradenigo's Syndrome: Functional Blindness. (Case discussed in conjunction with Dr. Lumsden's Paper.)**—DR. I. SIMSON HALL.

R.S., aged 17: had submucous resection of septum 25.12.34: developed pain in right ear on 28.12.34: ear began discharging immediately after. Facial weakness on left side noticed five days after onset of pain. On admission (12.1.35) had complete left-sided facial paralysis.

*Examination.*—Left drum showed a posterior perforation through which pus was pulsating. Hearing—whisper at 1 foot left ear: right ear normal. Electrical reaction, reaction of degeneration left side facial nerve.

18.1.35.—Left mastoid operation carried out. Usual Schwartze operation showed a not very advanced state of suppuration in a cellular mastoid bone. The facial nerve was identified at the stylo-mastoid foramen and uncovered up to the horizontal semicircular canal. The sheath was incised and examination of the nerve bundles did not reveal any obvious lesion. Wound dressed with saline.

14.2.35.—Patient made an excellent recovery and was allowed to go home as the wound was practically healed and his doctor was willing to do what dressing was required.

19.2.35.—Patient readmitted with pain on the left side of the face, giddiness and sickness, and nystagmus chiefly to the left. Wound healed and ear is dry. There is some suggestion of paresis of the left external rectus muscle: facial paralysis complete. Pulse and temperature normal. 20.2.35.—Definite diplopia: paresis left VIth nerve: less pain. 22.2.35.—Severe pain and some swelling of left side of face: sickness, etc., disappeared. 3.3.35.—Complains of deficient vision in the left eye: sent to the Eye Department: Ophthalmologist reports a contraction of the field of vision of the left eye. 6.3.35.—Left visual field more contracted: almost blind in left eye. The question was raised as to whether serious intracranial disease was present and patient was seen by Mr. Norman Dott, who confirmed the blindness of the left eye. Patient completely blind in left eye: sent to Eye Department, where it was discovered that the blindness was functional. When this was demonstrated to the patient a severe emotional crisis ensued: sight then recovered.

10.8.35.—Complained of pain behind the left ear: had two



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attacks of giddiness with some nausea but no vomiting : duration of attacks, twenty minutes.

*Examination* showed marked tenderness over the mastoid region and behind the jaw. Rinne's test positive on both sides : Weber to left : hearing—whisper at 6 inches : no spontaneous vestibular signs : tone limits normal. Still slight abducent paresis.

CASE IV.—**C.O.M.S. : Latent Labyrinthitis : Temporo-sphenoidal Lobe Abscess : Operation : Recovery.**

—DR. R. B. LUMSDEN.

A.D., male, aged 35, seen 19.4.35. *History* of discharge from right ear for many years : discharge stopped a few days ago and pain started : vomiting. Ear now discharging profusely. Slight rise of temperature last night, normal to-day. Pulse 50-60. No history of giddiness.

*Examination.*—Patient lying on left side : tongue very dirty. Left tympanic membrane normal : right tympanic membrane foul-smelling discharge, sagging of posterior superior meatal wall, cholesteatoma present : no mastoid tenderness. With Bárány box in left ear, he does not hear a loud shout. Indefinite nystagmus to both sides : no spontaneous pointing error : finger-nose test satisfactory : no dysdiadokokinesia : knee-jerks normal : normal plantar reflex : no aphasia (right-handed) : definite neck rigidity : no weakness of grip. Definite fistula symptom but cold caloric test gave no reaction after three minutes. (Rotation test not practicable.)

Ophthalmologist reports that optic discs are normal.

Lumbar puncture—cerebrospinal fluid turbid and tension increased.

*Right radical mastoid operation.*—Dense bone, cholesteatoma, pus under pressure : fistula in lateral canal. Sinus and dura of Trautmann's triangle healthy. Middle fossa extradural abscess : unhealthy granulations on dura.

Hinsberg's operation carried out and, as it was now thought to be a case of meningitis of labyrinth origin, translabyrinthine drainage was done : wire inserted into internal auditory meatus. A bead of pus was seen to come from the middle fossa : dura was further exposed and incised. The temporo-sphenoidal lobe was explored and foul-smelling pus was evacuated (staphylococcus) : drained with small rubber tube.

26.4.35.—Wire drain left out. Slight facial paresis noted to-day, for first time (presumably due to wire drain). 6.5.35.—Good appetite. Ophthalmologist reports slight blurring of both discs. 15.5.35.—Drainage tube left out. 10.6.35.—Meatal flap cut and wound stitched. 6.8.35.—Cavity healed : facial paralysis almost completely recovered.



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CASES V. and VI.—**Two Cases of C.O.M.S. with Labyrinthitis.**—DR. J. P. STEWART.

V. W.R., aged 35 years, complained of deafness and pain in right ear. Polypus removed from right ear several times.

*Examination.*—Polypus present in the right external meatus. Patient is completely deaf in the right ear. Vestibular reaction is negative.

*Operation* 26.9.35.—Radical mastoid and Neumann's labyrinth operation. Cholesteatoma present in mastoid antrum : promontory of semicircular canal appeared to be eroded : bridge removed : posterior canal opened up and promontory removed.

Progress satisfactory.

15.10.35.—Transferred to convalescent home.

VI.—W.M., aged 21 years. Both ears have discharged for many years. He has become very deaf in the last fortnight and headaches are present. Two or three months ago, he complained of giddy turns.

*Examination.*—Right drumhead is absent : granulations present on medial wall of tympanum extending on to posterior meatal wall. Tests show that boy is completely deaf on the right side. Some spontaneous nystagmus present. Vestibular tests are completely negative.

*Operation* 17.9.35.—Radical mastoid and Hinsberg's operation performed. Cholesteatoma present in mastoid antrum : large fistula present in lateral semi-circular canal : promontory removed and Hinsberg's operation completed.

11.10.35.—Transferred to convalescent home.

CASES VII, VIII and IX.—**Three Cases of Labyrinthitis treated by different Operative Procedures.**

—DR. A. BROWNLIE SMITH.

VII.—J.W., male, aged 46. Admitted to Medical Ward six days previously, with sickness and giddiness. Had pain in the left ear two days before admission and this ear started to discharge while in hospital. When seen in the Ear, Nose and Throat Department, he had pain in the left ear and headache.

*Examination.*—The left tympanic membrane showed a small central perforation with pulsating pus : considerable mastoid tenderness present, especially at the tip. Slight nystagmus to the right : Weber to right : with noise box in the right ear the patient was stone deaf in the left.

*Schwartze operation* (left).—Cortex normal : fairly cellular mastoid with much pus in the cells : wound packed and left open. Ten days later, as the ear was dry, the wound was sutured.



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When seen later, the wound had healed and the ear was dry but the patient was still stone deaf in the left ear.

VIII.—J.M., male, aged 21. Admitted to Leith Hospital on 12.3.34 with pain in the left ear. History of marked giddiness ten days previously.

*Examination.*—There was much pus from the left meatus, with numerous granulations. He had a paralysis of the left side of the face, the left side of his mouth being quite immobile though he could raise his eyebrows slightly. With the noise box in the right ear he was stone deaf in the left. On rotation he had no compensatory nystagmus.

*Labyrinth operation.*—Dense mastoid: antrum full of cholesteatoma, which had eroded the wall of the lateral semicircular canal: lateral sinus exposed by the gouge, pink in colour but quite soft. The facial nerve was seen lying exposed in its canal on the medial wall of the tympanic cavity. Lateral canal further opened up and promontory chipped off: facial nerve not interfered with: meatal flap cut: wound left open.

The patient made good progress and the wound was sutured later. The facial paralysis recovered but there was profuse discharge from the meatus; this ceased after some weeks of daily treatment.

IX.—M.B., female, aged 6. Admitted on 23.8.35 with pain and swelling of the right mastoid, with profuse discharge from the meatus. History of discharge from the right ear on and off for four years.

*Examination.*—Sagging of the right meatal wall but whisper heard at 6 inches by the right ear.

*Radical Mastoid operation* on admission.—Cortex normal but superficial tissues œdematous: no fistula seen in the cortex; mastoid process full of cholesteatomatous material: small piece of the facial nerve exposed by the gouge but there appeared to be a small fistula of the lateral canal: ossicles removed and meatal flap cut.

24.8.35.—Patient very sick: marked nystagmus to the left: stone deaf with the noise box in left ear: no fever: dressed.

25.8.35.—Patient much better: giddiness and nystagmus passing off: can now hear with the noise box! Dressed: stitches removed.

6.9.35.—Patient very well: wound healed: hears whisper at 5 inches with left ear: no nystagmus: marked fistula symptom on applying Politzer bag to the meatus, but no giddiness on turning the head.

10.10.35.—Much granulation tissue in the cavity, with discharge.



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DISCUSSION (CASES IV—IX).

Dr. R. B. LUMSDEN said that Case IV was shown because of the association of temporal lobe abscess with labyrinthitis and also the presence of a positive fistula test in a labyrinth which did not give any other reaction. The translabyrinthine drainage, in the light of subsequent events, obviously ought not to have been carried out, but the notes of the case explain how it came to be done. The fact that the stapes was absent, had been omitted from the notes.

Dr. J. S. FRASER thought that the presence of cholesteatoma explained the absence of vestibular reaction in Case IV. The cholesteatomatous mass acts as a non-conductor in the cold caloric test and prevents the reduced temperature reaching the semicircular canal apparatus.

Dr. GAVIN YOUNG suggested that with regard to Cases V and VI, it seemed a little heroic and asked Dr. Stewart if he had done other cases not reported.

Mr. DONALD WATSON thought, with regard to these granulations, that if Dr. Stewart would give that patient a bath of 2 per cent. zinc sulphate three times a week, for about ten minutes, he would stop those all right. About the labyrinth operation, he, Mr. Watson, did not think it was an operation that should be done. When he said that, he meant that there are cases of definite labyrinthitis which clear up without operation on the labyrinth. He never did that operation now and he had not had a death from labyrinthitis since 1924. He thought that if surgeons did not do the labyrinth operation their results would be better.

Dr. ADAM was glad to hear Mr. Watson say that. He (Dr. Adam) had given up operating on diseased labyrinths unless there was a very strong indication for it. He had had four cases recently of meningitis, with pus in the cerebrospinal fluid, and streptococci in one of them, and they had all recovered. In two he did a double vestibulotomy but he thought with Mr. Donald Watson that it is not always necessary to do a labyrinth operation. If one removes the bone extensively all round, especially the tegmen, and slits the dura, one may get these patients well without doing an extensive operation on the labyrinth. Dr. Adam said that all the cases in which he did a translabyrinthine drainage died, and since he had operated as indicated, they had not died.

Dr. J. S. FRASER said he was sorry to speak again but he could not take Mr. Donald Watson's remarks sitting down. In most cases of labyrinthitis the hollow spaces of the inner ear were full of pus or at any rate of infective material If you operate you use a hammer and gouge on the mastoid and the chances are that you spread infection to the posterior cranial fossa, either along the internal acoustic meatus or the aqueduct of the cochlea, with the result that the patient develops septic meningitis. It sometimes happens that a day or two days after the radical mastoid operation, in which a skin graft is applied, the patient is giddy, has nystagmus to the sound side, sees external objects rotating and is almost completely or quite deaf with the noise box



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in the good ear. In such cases he (Dr. Fraser) had occasionally omitted to perform an immediate labyrinth operation, hoping that he had only to deal with serous labyrinthitis. He found that the safest thing was to perform the Hinsberg operation. He never regretted taking that course of action but he had regretted several cases in which he hoped for the best and omitted to drain the inner ear. (Dr. Fraser remarked here that when applying a skin graft after the radical operation it was safer to cut a small hole in the graft and adjust it so that the hole lies opposite the danger area, i.e. the inner wall of the tympanum and the window region.)

Dr. Fraser went on to say that this subject of labyrinthitis was one in which a combined investigation by members of the Society would be of the greatest value. Let those otologists who do not believe in the labyrinth operation give an account of all their labyrinth cases, with hearing and caloric tests, operative technique and results over a period of five to ten years, and let others who do believe in draining an infected labyrinth do the same.

Dr. ADAM said that he used a hammer very little if he could avoid it.

Dr. A. B. SMITH (in reply) said that Case IX developed a very marked labyrinthitis after the radical mastoid operation and she was stone deaf with the noise box in the opposite ear. He thought then of opening the labyrinth and draining it but it occurred to him that the labyrinthitis was a traumatic one. He formed the impression that it was not an inflammatory condition. The labyrinthitis passed off because she can now hear fairly well in that ear.

CASE X.—**Malignant Melanoma of Left Ear.**

—DR. I. SIMSON HALL.

W.W., male, aged 56. First seen 29.6.33, with papillomatous growth of a bluish colour in posterior margin of meatus.

13.7.33.—Cartilaginous meatus excised and radical mastoid carried out. After recovery, which was uneventful, deep X-ray treatment was given to the gland areas. Patient remained perfectly well till 5.9.35, when some glandular enlargement was noticed on the left side. The case is now being treated by deep X-ray therapy.

The probability is that the glands are malignant, but it is unusual to find metastasis so delayed in this type of tumour.

Slides shown.

CASE XI.—**Case of Compound Fracture of the Mandible with an Obstruction of the External Meatus.**

—DR. G. EWART MARTIN.

J.L., aged 32, seen at Leith Hospital by Dr. Barker.

7.10.35.—Complained of bleeding from his left ear following a blow on the jaw.



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*Examination* showed, on the anterior wall of the cartilaginous meatus, a tender area which was hard and immobile: the skin was red: behind this there was an old anterior perforation of the drum.

X-rays show a fracture of the neck of the mandible and backward displacement of a fragment into the cartilaginous meatus.

Some limitation of the movement of the jaw and constant complaint of pain in the ear.

CASES XII and XIII.—**Four Cases of Nasopharyngeal Growth of doubtful Pathology.**—DR. I. SIMSON HALL.

XII.—Mr. A.D., aged 52.

*History* of nasal obstruction, increasing weakness, and irregular pyrexia for some weeks: no previous illness of importance.

*Examination* showed enlargement of upper part of left tonsil. An ulcerated mass could be seen in the nasopharynx, obstructing all view of the choanae. Two shotty glands could be felt over the lower end of the sternomastoid muscle on the left.

Slide shown.

*Radium treatment* under Dr. McWhirter—dosage 20 m.gm.—completely eliminated the nasopharyngeal mass, breathing through the nose being re-established. Patient then developed an ulcerating mass on the right side and dorsum of the tongue. This grew with extreme rapidity and was accompanied by some glandular enlargement on the right side around the sternomastoid muscle.

*X-ray therapy* was instituted by Dr. Angus Campbell, and the mass immediately began to regress.

The glands on the left side were dissected out.

After a few days there was a sharp hæmorrhage from the right side which was followed by cerebral thrombosis, to which the patient succumbed.

Slides of tongue lesion and glands shown.

XIII.—Mrs. D., aged 56, first seen 14.2.35.

Complained of pain in throat for five months: no discomfort or difficulty in swallowing: no previous history of throat trouble: no hoarseness: not subjects to colds. Patient makes the statement that throat trouble started with an ulcer.

*Examination.*—A large ulcer could be seen at reflection of the soft palate on the posterior pillar. There was a roughened edge on the ulcer which extended up to the nasopharynx, about one inch in length and half an inch across. There was no sloughing base and no glandular enlargement. Pieces of the ulcer edge were removed on two occasions for examination.

25.8.35.—Readmitted for investigation. On examination a mass was found in the nasopharynx, chiefly on the upper surface of the soft palate, extending up the right side. The growth was



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irregular with a somewhat rough surface and did not appear to be ulcerated. Deep X-ray therapy was given after consultation with Dr. McWhirter.

Blood count showed a marked diminution of white cells—88 per cent. of polymorphs and no early forms. Blood Wassermann was negative.

Slides shown.

Developed a swinging temperature and finally died about a month after treatment was begun, treatment having been discontinued very shortly after it was started.

CASE XIV.—(Case shown in conjunction with Dr. Simson Hall's Cases.) **Case shown previously in November, 1934, with a view to Diagnosis. Slides suggestive of a Sarcoma.**

—DR. G. EWART MARTIN.

Mrs. G., aged 44. Patient was first seen on 17.12.32 with a history that six weeks previously she had developed a lump in her neck. This was going to be explored but suddenly disappeared during the night and she coughed up a large quantity of pus. There is a previous history of swallowing a fish bone which had stuck in her throat.

*Examination.*—Below the post-cricoid on the right lateral wall there was a tear in the œsophageal wall opening into a large abscess cavity with some pus and full of graulations. This was cleared out. Later patient complained of difficulty in swallowing and was found to have a stricture of the œsophagus which had to be dilated on various occasions. The tissue removed from this region at the time of the first operation and on two later occasions showed no evidence of malignancy.

Patient was not seen for five months as she had moved to another town. She complained of a sore throat and went to see another doctor who treated her with gargles for some time before sending her for further examination. When examined, there was a large ulcer involving the left false cord, with a good deal of œdema of the left arytenoid. A piece was removed for pathological report and again no sign of malignancy or tuberculosis was found. Wassermann was negative even after a provocative dose.

This ulceration increased, involving the whole of the ary-epiglottic fold and epiglottis, so much so, that a tracheotomy had to be done and a further piece was removed for pathological examination. The opinion of the pathologists on the various pieces removed was that it might be a type of sarcoma.

Patient had glands on both sides, submaxillary and in the anterior and posterior chains, which were thought to be malignant. No glanders or actinomycosis. Swallowing became difficult and a gastrostomy had to be done.



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The patient was seen in consultation with Mr. Shaw and Mr. Jardine, who were both convinced that the glands were malignant. Radium bomb therapy suggested. There was no exploration of the glands for pathological report. Under radium therapy the glands have disappeared. Patient has now recovered her voice and is able to swallow normally. There is still a slight œdema of the arytenoids. The gastrostomy tube has been removed.

*December*, 1934.—Hypopharynx and larynx normal. Patient was able to swallow normally: speech was normal: was still wearing the tracheotomy tube corked, mainly on account of the dread of choking.

29.3.35.—Some granulation tissue on the lateral wall of the left pyriform sinus. Arrangements were made for patient's admission to Beechmount for further treatment.

26.6.35.—Marked thickening of the epiglottis with œdema of the arytenoids. Before arrangements could be made for the patient's admission to Beechmount, breathing became worse and a mass appeared below the tube, anterior to the trachea: swallowing became difficult and the gastrostomy had to be reopened. Patient had one or two attacks of difficulty in breathing: rubber tracheotomy tube had to be inserted instead of the silver tracheotomy tube.

Patient reacted to radium bomb therapy. Further pieces were removed for pathological report.

Patient left the hospital on her own initiative and died on 20.10.35.

For diagnosis and discussion. Slides shown.

### Discussion (Cases XII-XIV).

Dr. I. Simson Hall said that most of us are familiar with the type of nasopharyngeal tumour which is reported by the pathologist as consisting of granulation tissue. Malignancy is stated to be absent, and we are left in considerable doubt as to the exact nature of the condition with which we are dealing.

Case No. XII belongs to this group, and is shown because it seems to shed some light upon what has hitherto proved an obscure problem. One case is insufficient as a basis for any assumption of fact, and it is not claimed that anything is proved in this instance. Apparently the chief obstacle to agreement over the character of these tissues is the difference of opinion regarding their embryonic origin. But this need not concern us, except that we must realize that the tumours are of a reticulum type in which proliferating endothelium is a marked characteristic. This applies to almost any granulation tissue, and this was the dead wall against which we had come in investigating this case.

About two years ago, he (Dr. Hall) reported a number of such cases and described in detail one which had come under his personal observation, and at that time he endeavoured, on admittedly slender grounds,



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to link up the condition described with Hodgkin's disease and similar conditions, calling the disease described an ulcerative reticulosis. With this in mind he dissected out a small mass of glands from the left side of the neck and received the report from the pathologist of typical Hodgkin's diseases.

Here, then, was a case presenting all the characters of Hodgkin's disease in cervical glands and at the same time what appeared to be a primary focus in the mucous membrane of the nasopharynx. As there appeared to be a relationship between the progress of the lesion of the nasopharynx and the glandular enlargement, it seems not unreasonable to believe that we were dealing with a mucous membrane manifestation of Hodgkin's disease. Dr. Hall suggested that the term previously mentioned might be made more exact and the condition called " Ulcerative reticulo-endotheliosis ".

The clinical application of this conception lies in the realization that so far from being lulled into a false sense of security by the absence of malignant disease in these nasopharyngeal growths, we ought to realize the necessity of treating them energetically by radiation and including in the treatment the associated gland areas. The treatment, Dr. Hall said, should of course be carried to the full therapeutic extent.

In conclusion, Dr. Hall expressed his indebtedness to Colonel Harvey, of the Royal College of Physicians' Laboratory, for his expert opinion, so willingly granted, and much helpful advice.

Dr. Brown Kelly said that there is a variety of tumour of the lateral wall of the nasopharynx which is more obscure than those reported to-day and which presents a characteristic group of symptoms described by Wilfred Trotter. The Eustachian tube is more or less obstructed ; the movement of the corresponding half of the soft palate is interfered with owing to involvement of the levator palati, and there is neuralgic pain in the cheek, tongue and lower jaw, owing to pressure on the inferior maxillary nerve. The patient may thus suffer from deafness, hemiparesis of the palate and neuralgia in the ear and the same side of the head.

Dr. M. J. Gibson said that these cases appeared to have, from the clinical aspect, many points in common with a series of cases exhibited by Dr. Mathers and himself at the meeting of this Society held in Dundee in May, 1934. Professor Cappell discussed the pathology of their cases at the meeting and decided that they might be classed as lympho-epithelioma. Massive and rapidly growing involvement of the cervical glands, with a small primary lesion in the nasopharynx or tonsil, was noted in their cases.

The local condition in the nasopharynx, and the adenitis, responded in a very satisfactory way to radium treatment. In three of the cases, radium needles were introduced into the growth and the glands were treated by radium applied on a Columbia paste collar. One case, that of a woman with a lympho-epithelioma of the tonsil with an extensive involvement of glands, was treated with a collar only. She is alive and shows no evidence of recurrence or of the original disease two and a half years after the original treatment.

Miss Tod said it was rather difficult to discuss Case XIV because the material which was submitted for pathological examination looked



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so entirely like granulation tissue that it has not been possible to get proofs of malignancy. It was an extremely rapidly growing tumour and recurred persistently. They treated her with radium and she (Miss Tod) had always regretted that they did not carry her to full dosage, but the presence of the tracheotomy, sepsis and the swelling of the mucous membrane, together with the lack of proof, made them go very slowly. The dosage was low and Miss Tod thought now that, had she given full cancer lethal dosage, the patient would probably have lived longer. Miss Tod's own opinion was that it was a true case of lympho- or reticulum-cell sarcoma. She had seen most of these cases of Dr. Hall's, a very interesting series, all having similar symptoms with entirely different pathology. They had one case which they thought might have been shown at this meeting, but Colonel Harvey's opinion was that they were dealing with a squamous epithelioma in spite of appearances suggesting sarcoma.

With regard to the point raised about lympho-epithelioma, Miss Tod agreed with Ewing's view that this radio-sensitive tumour is the transitional type of carcinoma which arises in the primitive basal cells in the crypts of the tonsil. The proliferation of the lymphoid tissue is due to the fact that wherever there is a rapidly growing tumour the stroma tends to proliferate and here the stroma contains lymphocytes and the process is in some ways analogous with the proliferation of fibrous tissue in scirrhous carcinoma of the breast.

Dr. RITCHIE RODGER thought the common experience is that these nasopharyngeal growths are very radium sensitive. He had generally treated them with radium needles packed into the nasopharynx and had had quite a number of very good results. In fact he was generally inclined to tell the patient that it is one of the more favourable situations in which to have such a growth.

Mr. DONALD WATSON asked if Mr. Rodger had had any trouble with necrosis of bone after using radium in that situation.

DR. RITCHIE RODGER replied that he had no experience of that.

CASES XV and XVI.—**Two Cases of Carcinoma of Hypopharynx.**—DR. G. EWART MARTIN and DR. I. SIMSON HALL.

XV.—(Dr. G. Ewart Martin.) (Case shown with a view of suggested further treatment.)

Mrs. A.B., aged 47, first seen in *February*, 1935. Large ulcer on the posterior wall of the hypopharynx extending almost into the mouth of the œsophagus and slightly on to the right lateral border.

Admitted on 13.3.35 to Beechmount for radium bomb treatment. Patient had altogether sixteen hours on each of the eight areas mapped out on either side of the neck, behind the angle of the mandible and below the angle of the mandible. The full twenty hours of treatment were not carried out owing to a severe skin reaction.

6.6.35.—The original ulcer had disappeared. There was a little thickening of the left lateral wall and some œdema of both



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arytenoids, probably due to the radium treatment. The movement of the cords was normal.

17.10.35.—There is now a fixation of the left arytenoid, but no thickening and no signs of the original growth. The hypopharynx and mouth of the œsophagus are normal.

XVI.—(Dr. I. Simson Hall.)

R.M., aged 37, first seen 8.12.34. Soreness and roughness of throat: some pain on swallowing but no actual difficulty.

*Examination* of larynx showed paralysis of left vocal cord and swelling of left arytenoid.

13.2.35.—Examination: Growth of hypopharynx entering into the posterior cricoid region.

14.3.35.—Treated by bomb therapy.

9.5.35.—Fixation of left side of larynx.

Discussion (Cases XV and XVI).

Miss Tod stated that treatment is based on two principles—one, that there is a certain lethal dose for the tumour, the other that there is a therapeutic ratio, that is a difference between the quantity of irradiation necessary to destroy the tumour cells and that necessary to destroy the surrounding normal cells. Could one be certain of getting the full lethal dose, the figure given for squamous epithelioma being 7,000 "r", it would be a simple matter, but it is extremely difficult to do in practice. In many cases it is impossible to get near the tumour because of the general condition of the patient, the actual position of the tumour, and the reactionary swelling of the mucous membranes. At present they have only 1·2 grammes of radium in the "bomb", and a patient must be prepared to have four hours of treatment a day extending over fully a month. Dosage is carefully measured, where possible the distance from the tumour to the skin is measured with calipers, i.e. tonsil or fauces to cheek and upper cervical region. For low placed tumours the position may be guessed by taking the outside diameter of the neck; the average diameter is 12 cm., and for the two cases treated the distance would be 5 cm. from one side and 7 cm. from the other, and the percentage depth dose is calculated on this assumption. The highest dose which these patients can stand on the skin surface is 5,000 "r" which gives a moist desquamation. The first patient had six fields and the dose to the tumour works out at just over 7,000 "r". In the skin case eight fields were used and a depth dose of 7,000 "r" to tumour was obtained. As regards the further treatment of these cases, Miss Tod said they had already exposed the tumour to full lethal dosage, and to do this it had been necessary to use up practically all the available skin. They were limited by their biological material and economy was not possible. There might be odd patches where the skin was good enough to be used again, but there would certainly not be enough to subject again to the necessary lethal dosage. The same applies to X-ray treatment, so if anything further were to be done it must be locally in the pharynx.



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CASE XVII.—**Case of Epithelioma of Right Tonsillar Region.**—DR. CHARLES E. SCOTT.

J.McL., aged 9, admitted to Medical Ward of Royal Hospital for Sick Children with history of difficulty in opening his mouth.

On *examination* the patient could just separate the teeth and he appeared to have some thickening and sagging of the right side of the face. The condition was thought to be a fixation of the right temporo-mandibular joint which, however, was found to be normal by the general surgeon. The patient was referred to the Ear, Nose and Throat Department where, on examination under general anæsthesia, he was found to have some hard infiltration of the right tonsillar region. A piece of tissue was removed for examination and was reported by the pathologist to be a squamous epithelioma.

The patient is now undergoing radium treatment at Beechmount.

Slides shown.

DISCUSSION.

DR. RITCHIE RODGER asked if the Edinburgh men preferred bomb treatment to radium needles in all cases. He said that most of them had not got the advantage of a bomb.

MISS TOD said that this patient had five fields and the distance was less in this case so that it was easy to give a full dose of 7,000 " r ". Tumours of the tonsil and fauces are easier to treat than those in a post-cricoid region.

DR. ADAM asked if this bomb treatment was to be preferred to Coutard's treatment with X-rays.

DR. C. E. SCOTT (in reply) said that he had very little experience of radium treatment. When this case was reported upon by the pathologist, he asked Mr. Shaw, at Beechmount, if he would see the patient and he left the treatment entirely in the hands of Mr. Shaw and Miss Tod.

CASE XVIII.—**Squamous Epithelioma of Alveolus and Maxillary Air Sinus.**—MR. J. D. LITHGOW.

C.M., previously shown to the Society.

Treated by radical operation and deep X-ray therapy. After two years developed an area of leucoplakia on his upper alveolus. The pathologist reported no actual malignancy but pre-cancerous change.

Treated by radium bomb therapy.

Is the present condition still malignant ?

CASES XIX and XX.—**Two Cases of Epistaxis.**

—DR. G. EWART MARTIN.

XIX.—Epistaxis in a woman with telangiectasis.

Mrs. J. W., aged 40, first seen in 1930 with epistaxis, but not profuse. At that time patient was six months pregnant and had



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rather a stormy pregnancy due to severe hæmorrhage. Since then has had further pregnancies and a complete hysterectomy.

Seen again 2.10.35 with epistaxis. Had recent bleeding from the roof of the mouth. Telangiectasis of the hard palate, tongue, left middle turbinate and of the septum.

Local area touched with chromic acid. Diathermy suggested if any further bleeding.

XX.—Case of Epistaxis. (Vicarious Menstruation.)

First seen 23.10.35. Two years ago patient commenced to have bleedings from the nose during menstruation. This stopped for some time but has recurred during the last seven menstrual periods.

On *examination*, no bleeding point to be seen. Mucous membrane bleeds easily when touched.

Discussion (Cases XIX and XX).

Dr. Brown Kelly considered this a comparatively early case of telangiectasis. In 1906 he had two cases in sisters, pictures of which he showed. He said that a striking feature of the disease is that it may affect several members of a family. He had had nine cases, viz. in two sisters, three sisters, two females not related, and a father and daughter; thus there had been only one male patient. It has no known connection with hæmophilia or a blood disease. The telangiectases may develop also on the fingers and under the nails, rendering the patient largely incapable of working with the hands. One of the most recently recommended methods of treatment is that of Eidinow, viz. exposure to erythema doses of ultra-violet rays by means of a water-cooled Hg-vapour lamp.

Case XXI.—**Clinical Record of a Case of Hydrophobia in which the primary symptom was difficulty in swallowing.**

—Dr. G. Ewart Martin.

A.H., aged 46. Patient was six months home on leave from Africa. He developed a sudden difficulty in swallowing, with no premonitory symptoms.

Case diagnosed as hydrophobia. Patient died in three days' time.

Pathological report and slides shown.

Cases XXII and XXIII.—**Two Cases of Frontal Sinusitis.**

—Dr. I. Simson Hall.

XXII.—Chronic Frontal Sinusitis.

M.H., aged 26, first seen 20.8.35, with a history of sinusitis on left side of forehead which caused eyelid to swell. Patient had had operation, in Oldham, in 1931.



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*Examination* showed a small scar in the left upper angle of the nose, which might have been the result of a Howarth operation, and definite resistance far back in the orbit as compared with the right side. The left middle turbinate has been resected. The sphenoid could be seen widely open.

Sinuses X-rayed.

21.10.35.—Left radical antrum operation. Left side of nose probed; very small opening into sinus. Incision made in the old scar; old opening exposed and found to be very much narrowed by orbital adhesions which made drainage impossible. Outer table therefore removed and radical operation carried out. Careful examination of the medial part of the sinus showed a connection into the right frontal sinus: granulations were removed but this was not otherwise interfered with. Anterior end of the right middle turbinate was resected and adequate drainage ensured through the right fronto-nasal duct. Wound closed with sutures.

22.10.35.—Making good progress.

XXIII.—Orbital Abscess: subperiosteal frontal abscess: frontal sinusitis.

J.D., aged 17, seen 12.10.35. Duration of illness six days: said to have begun with influenza: had pain to begin with over the left eye, the point of maximal tenderness being almost at the outer angle of the orbit. Swelling of the eyelid followed and spread over the left temple.

*Examination.*—Uniform swelling of the left upper eyelid, dusky in colour. Swelling did not involve the inner angle and there was no periosteal thickening at the inner angle. Swelling extended almost to the frontal suture but was not demarcated by the suture. There was one spot of tenderness over the eyeball, rather on the outer side.

No ocular paresis. Temperature swinging to 104° F.

*Operation.*—Pus under the periosteum and in the orbit on the outer side. Periosteum closely adherent over inner angle and lachrymal bone. Frontal sinus opened and found to be full of pus, also the ethmoid: bone of outer wall of frontal rather soft. The radical operation was completed and drains inserted, with a counter-opening made in the temporal region. Remainder of sinuses on the left side were investigated and drained.

### Discussion (Cases XXII and XXIII).

Dr. Gavin Young said there was a point he would like to make in regard to the technique in Case XXII. He noted that in the notes Dr. Simson Hall said "adequate drainage ensured through the right fronto-nasal duct". At the meeting last year, when there was a discussion on frontal sinus operations he (Dr. Young) gave it as his modest



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opinion that the chief use of a fair proportion of the conservative frontal operations was to seal off the frontal sinus and make it an excellent ground for carrying out the radical operation. One was left with a cavity practically sealed off from the nose and if the anterior wall was removed thoroughly and the edges bevelled down properly, the skin could be applied to the posterior wall of the sinus and kept down by a pad and there was no need to drain down into the nose. In fact Dr. Young believed it was a mistake to drain into the nose. He considered a little drainage into the internal angle of the eye sufficient drainage of the wound, which very often heals aseptically.

Dr. SIMSON HALL (in reply) thought that perhaps the wording had misled Dr. Young as to what actually happened. The patient in question, he said, was operated upon a considerable time previously and at that operation apparently some sort of Howarth technique was employed and these had completely sealed off when he (Dr. Hall) saw her. That fronto-nasal duct should have read " where the fronto-nasal duct had been ". He put it in in order to indicate that drainage of the cavity was carried out the first few days through a tube into the lower end of the cavity caused after removal of the anterior ethmoidal cells and anterior wall of the frontal sinus. The patient being a negroid woman, the frontal sinus was in some ways rather deeper than normal. It was found impossible to secure immediate obliteration at the medial side of the sinus. Dr. Hall quite agreed with Dr. Young that the object of that operation ought to be complete obliteration so that in the end no sort of drainage was required.

CASES XXIV and XXV.—**Two cases of Carcinoma of Larynx.**—DR. R. B. LUMSDEN and DR. I. SIMSON HALL.

XXIV.—(Dr. R. B. Lumsden.) J.S., male, aged 63. Loss of voice for about six months. Swelling and ulceration of left vocal cord in its whole extent: left arytenoid fixed. Wassermann reaction negative.

*Direct Laryngoscopy.*—Vocal process is not involved. Growth extends to anterior commissure but does not involve the right cord. Tissue removed for biopsy: squamous-celled carcinoma: cornification and pearl formation: invasive character evident. (R.C.P.) Slide shown.

14.3.34.—Intratracheal anæsthetic: no tracheotomy. Fenestration of thyroid cartilage which was ossified. Ten 1 m.gm. radium needles inserted. 20.3.34.—Radium removed. 1,400 m.gm.-hours. 18.5.34. Condition satisfactory: considerable mobility of arytenoid. 28.6.35.—Condition satisfactory. (Voice has never been very good.)

XXV.—(Dr. I. Simson Hall.) J.K., aged 58.

*Complaint.*—Hoarseness for about 3-4 months.

*Examination* showed a growth involving the left cord in its anterior two-thirds and almost encroaching on the anterior commissure.



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*Treatment.*—Fenestration operation. Eight 1 m.gm. needles inserted into the left side of the larynx in submucous position.

Good immediate result was obtained and the patient was at once put on bomb treatment. After conclusion of treatment the growth had completely disappeared. Patient returned to work and has been in good health.

Just a year after treatment he developed an œdema of the vocal cords and false cords which necessitated tracheotomy. The question is whether this is a local recurrence or is it a late radiation reaction ?

CASE XXVI.—**Transplantation of Vocal Cords. Case for Report.**—DR. I. SIMSON HALL.

Mrs. R. Bilateral abductor paralysis following goitre operation, treated by outward transplantation of the anterior ends of the vocal cords.

During the past year has had no trouble whatever : has a useful voice : is a little short of breath on going upstairs but states that this is less than prior to goitre operation. As the cords were stated to be normal then, it is probable that the difficulty is due to myocardial weakness as much as to want of airway.

DISCUSSION.

Dr. BROWN KELLY complimented Dr. Hall on the wonderfully good result he had obtained both as to respiration and speech. So far as he (Dr. Brown Kelly) knew, it is a new operation.

Dr. SIMSON HALL (in reply) said he brought this patient up again because one or two of the members who saw her last year asked him to show her again. The operation of course gives the patient an alternative to the permanent tracheotomy tube, and the result justifies the patient's choice of operation rather than tracheotomy.

CASE XXVII.—**A Case Simulating Cardiospasm.**

—DR. G. EWART MARTIN.

Mrs. J.Y., aged 74, first seen 16.10.35. Slight obstruction to swallowing for four weeks.

X-ray after a bismuth drink, and the X-ray report was a typical cardiospasm.

*Œsophagoscopy.*—There is a little dilatation of the lower end of the œsophagus : normal hiatus : spasm of the cardia with a circulating mucous polypus, evidently growing from the stomach. The polypus was removed and the spasm has practically disappeared.

Pathological report on polypus shows no evidence of malignancy.

CASES XXVIII-XXXI.—**Four Cases of Neuro-muscular Dysphagia.**—DR. I. SIMSON HALL.

XXVIII.—R.H., aged 9, first seen 24.1.35 with a history of difficulty in swallowing and retention of food.



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*Direct examination* showed marked dilatation at the lower end of the œsophagus. After two treatments a Hurst bougie was passed daily, and as long as a bougie was passed daily, the patient swallowed soft food. Whenever treatment was intermittent, retention occurred.

23.5.35.—After consultation with Mr. Graham, left gastric artery section was carried out by Mr. Graham.

8.9.35.—Some improvement since operation but still has difficulty. Dilated again under anæsthetic.

X-ray shown.

22.10.35.—Is improving but still has some difficulty.

XXIX.—R.S., aged 27, seen 2.8.34, with history of difficulty in swallowing. X-ray shows widely dilated œsophagus.

*Direct examination* confirms this and demonstrates marked kink at the cardiac orifice.

3.10.34.—Up to this time bougies were passed repeatedly by direct and indirect method, without improvement. As the patient's condition was steadily deteriorating, after consultation with Mr. J. M. Graham, he was transferred to Mr. Graham's ward on 31.10.34 and section of the left gastric artery was carried out.

28.2.35.—Readmitted to Ward 37B as, after temporary improvement following operation, patient's condition is as before and again rapidly deteriorating. *Direct examination* carried out, as before, on three occasions and bougies passed more easily than formerly.

27.4.35.—Has gained weight rapidly : swallowing easily though not quite normally. 15.10.35.—Weight now stationary at 9 st. 7 lb. ; has a bougie passed once or twice a month.

X-rays shown.

XXX.—Mrs. MacG., first seen 22.3.35. *Complaint.*—Difficulty in swallowing, of fifteen years' duration.

*Direct examination* showed a dilatation of the lowest part of the hypopharynx. The œsophageal opening was concealed in folds of mucous membrane and was not in the position usually associated with the condition of pharyngeal pouch. There was a solid fibrous ring admitting only a very small size of bougie.

13.6.35.—Has been dilated on seven occasions during three months and can now swallow normal food.

X-rays shown.

XXXI.—Mrs. B., first seen 4.10.35 with a history of a choking feeling of four years' duration : patient has a sensation of food sticking far down : has had no solid food for two years and has lost weight during the past year.



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9.10.35.—Direct examination : bougie passed directly into the pouch, which was greyish in colour : the œsophageal opening was discovered in the lower part. It was found on dilatation that there was a hard fibrous stricture. Nothing was seen to suggest malignancy.

16.10.35.—Dilatation carried out again : opening was definitely more patent than before. There appeared to be some roughening of the edges of the stricture. 22.10.35.—Improving.

It is expected that this case can be treated and cured by dilatation alone.

X-rays shown.

# OTO-LARYNGOLOGY IN CHINA AND JAPAN

DURING a recent journey to the East the writer visited a number of hospitals and met many colleagues, and it has occurred to him that a brief note on the above subject might interest readers of the *Journal*. Oto-laryngology can scarcely be regarded as an organized specialty in China. There are only about 6,000 "Western doctors" for China's 400 millions. The bulk of this great population is still unreached by the benefits of modern medicine, first introduced by Dr. Colledge when he opened the Macao Ophthalmic Hospital in 1827.

The present is a time of great activity for the new medical profession of China. Many Chinese who have studied and graduated in Europe, America or Japan are now in positions of influence, and not a few have opened Departments of Oto-laryngology in the hospitals of the large cities. The foreign doctor, be he missionary or private practitioner, is perforce withdrawing gradually from China and making way for his Chinese colleague. There is as yet no Medical Register and no protection from blackmail which is a serious menace, but such matters are receiving the close attention of the Chinese Medical Association.

There are thirty Medical Schools in China, attended, according to the latest statistics, by 3,616 students, of whom 2,978 are men and 638 are women.

The field for oto-laryngology is immense and a considerable amount of original work has been published in the *Chinese Medical Journal*, in the *Chinese Journal of Physiology*, and in *Caduceus* (University of Hong Kong), as well as in foreign Journals. Most of the original observations are published in English, German or French.



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