Society of Otology and Laryngology

SCOTTISH SOCIETY OF OTOLOGY AND LARYNGOLOGY.

ROYAL INFIRMARY, GLASGOW.

June 4, 1932.

President—A. LOGAN TURNER.

CASE 1. **Angeio-Fibroma of the Pharynx**—JAMES HARPER.—Mrs B., aged 25, complained of difficulty in swallowing, occasional slight bleeding from the throat and thickness of speech of three months' duration.

Examination.—A large mass was seen on the posterior pharyngeal wall divided into two and over-lapping the larynx; hard on palpation and of a blue colour. 1.10.31.—A tumour, which shelled out easily, was removed and the pathologist reported angeio-fibroma.

The attention of members is directed to the present condition of the larynx and opinions are invited.

Dr. HARPER: "The larynx was normal when I examined this woman at the end of September, and the growth was confined to the posterior wall of the pharynx. The tumour shelled out quite easily. It is rather puzzling to know what has happened in the interval."

CASE 2. **Foreign Bodies in the Lung**—JAMES HARPER.—(*a*) E. F., aged 8. History of having swallowed foreign body five days before admission, 27.12.31. On swallowing foreign body child had violent fit of coughing. Since then no symptoms. X-ray examination showed foreign body in lower right bronchus. Under a general anæsthetic the foreign body was located by means of a bronchoscope but appeared to be firmly fixed in one of the smaller bronchi. Further manipulation was postponed for two days. In the early morning two days later, the child coughed up a squeaker.

(*b*) Isa M., aged 19, admitted 29.8.27 with a history of persistent cough. The general symptoms simulated pulmonary tuberculosis. There was a history of having swallowed a pin eleven years previously. X-ray examination showed a pin in the lower lobe of the right bronchus close to the diaphragm and out towards the pleura. It was removed by means of a bronchoscope with the help of X-ray.

(*c*) A. C., female, nurse, aged 24. Patient sneezed and in drawing in her breath swallowed an artificial tooth on a small plate. She vomited afterwards but had no coughing. Speech was normal and there was no difficulty in breathing. Pain on swallowing. X-ray examination showed a tooth apparently in the upper part of the œsophagus. Examination with the œsophagoscope showed the

https://doi.org/10.1017/S002221510003797X Published online by Cambridge University Press

œsophagus to be clear. Examination of the trachea showed tooth inside the trachea fixed to the lower surface of the vocal cord by means of a hook on the plate. The tooth was removed.

Case 2. Dr. MARTIN: "With reference to Case (*b*), I would like to know what help Dr. Harper got from the radiologist. I have seen Chevalier Jackson remove a foreign body in two cases somewhat similar to this, with two pleuroscopes going at the same time, so that one can see the whole thing in two planes. It is very difficult to get the radiologist nowadays to fit up apparatus for two pleuroscopes. I would like Dr. Harper to tell us exactly how it was done, for future reference. In Case (*a*) what was the difficulty as to fixation that the foreign body could not be removed?"

The PRESIDENT, referring to Case (*c*), enquired as to whether a lateral skiagram had also been taken, as this would probably have thrown more light on the actual position of the foreign body.

Dr. SIMSON HALL enquired as to Dr. Harper's method of anæsthetising the patient for this operation. Was it a local anæsthetic or a general?

Dr. HARPER: "In answer to Dr. Martin's question: We used two tubes, one giving an antero-posterior and the other a lateral view. The pin had been in the lung for eleven years and of course could not be seen through the tube. Case (*c*): This patient, a nurse, complained of pain on swallowing, and from the X-ray appearance the foreign body seemed to be in the œsophagus. It is interesting to note that she had no difficulty in breathing, and no change in her speech. As regards the anæsthetic: Personally, I prefer a general anæsthetic in these cases. There is no difficulty in keeping the patient under the anæsthetic. Very little anæsthetic is required. In reply to Dr. Martin: There is no difficulty in controlling the cough. We paint the vocal cords with a little cocain when we put the tube down."

CASE 3. **Epithelioma of the Left Tonsil and Base of Tongue**—JAMES HARPER.—Wm. C., aged 54. Extensive ulceration. No glands palpable. History of three weeks' duration. Admitted 24.6.31.

26.6.31.—Ligation of external carotid.

29.6.31.—Growth removed by diathermy. Healing was delayed for six weeks owing to a sequestrum forming in the upper jaw. Condition now satisfactory.

Case 3. Dr. COLLINS wished to know if Dr. Harper gives any deep X-ray therapy after these cases. Personally, he thought diathermy was the method of choice, and that the local results were very good. If there was no glandular involvement one felt very tempted to rely on the diathermy alone, but when the glands are definitely involved, does Dr. Harper recommend deep X-ray or excision?

The PRESIDENT called the attention of the members to a paper by Dr. James Duffy in "Surgery, Gynæcology and Obstetrics" in the March number of this year. The whole question of the treatment of tonsillar malignancy is dealt with very fully.

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Dr. STEPHEN YOUNG: "Our experience in the Cancer Hospital of deep X-ray therapy is that it is practically useless. We are getting no results at all from it."

Dr. HARPER: "One is hearing so much about radium in these days that I showed these cases to remind members that diathermy is, after all, a most valuable help in dealing with this condition. There were two cases shown—one a recent case and the other about seven to eight years after treatment. We do not use deep X-ray therapy afterwards. As Dr. Young has told you, we find it unsatisfactory after diathermy."

CASE 4. **Case for Diagnosis**—JAMES HARPER.—A. C., male, aged 24. Admitted 25.2.30 complaining of hoarseness of one month's duration. Examination of the larynx showed a granular condition of the vocal cords, with pus in the larynx and in the post-nasal space. The patient at first refused treatment. Wassermann reaction negative—sputum negative.

18.7.30 was re-admitted with tense red swelling over thyroid area and complete loss of voice. An abscess was opened externally and a considerable amount of pus was evacuated. The patient again refused further treatment, but was readmitted on 21.8.30 when it was necessary to perform a tracheotomy owing to dyspnœa. There was great œdema of the false cords which appeared to be shutting off the larynx. *At present* there is great œdema of the epiglottis and surrounding area. The tracheotomy tube is still inserted, and opinions of the members are invited.

Case 4. Dr. RITCHIE PATERSON said he had asked the patient about his history and was told that two years before this illness, upon a Sunday morning, he had had a bone removed from his throat by his doctor. Dr. Paterson wondered if a perichondritis had been the commencement of his present illness.

Dr. HARPER: "This man is getting worse. This is not a case of perichondritis. There is no evidence of tuberculosis and the Wassermann reaction is negative."

CASE 5. **Case for Diagnosis**—JAMES HARPER.—Hugh T., aged 17. Complained badly of nasal obstruction and purulent discharge from the right nostril. Had had several operations in various institutions previously. 21.10.31.—*Operation*: The right antrum was opened and was found to be full of pus and polypi. The right tympanic membrane was exceptionally hard and could be cut through only partially. Bleeding from the middle turbinal area was profuse and operation had to be suspended. Attempts have been made to remove the growth in the area of the tympanic membrane but each time the bleeding has been so profuse that the operation has had to be suspended. The pathologist reports that the tumour has much ulceration on the surface. The healthy part shows the structure of a hard

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fibroma with numerous vessels. There was no evidence of malignancy. Suggestions from the members are invited.

Case 5. Dr. DOUGLAS GUTHRIE suggested that this was a case of nasopharyngeal fibroma. The nasopharynx appeared to be almost entirely filled by a large mass growing forwards into the right choana.

The PRESIDENT agreed with Dr. Douglas Guthrie's view of the case—that it was a nasopharyngeal fibroma. The tumour had its origin in the nasopharynx aud had grown forwards into the right nasal cavity.

CASE 6. **A Short Analysis of Thirty-one Cases of Lateral Sinus Thrombosis occurring in the Throat, Nose and Ear Wards of Glasgow Royal Infirmary during years 1929-31.** —JAMES HARPER.—In the Throat, Nose and Ear Department of the Glasgow Royal Infirmary during the years 1929-31, 423 patients were operated on for acute mastoid disease. Among this number thirty-one cases were found to be suffering from lateral sinus thrombosis. In this series, cases which suffered in addition from a brain abscess or infection of the labyrinth are not included. They are cases in which a definite clot was found in the sinus or in which the sinus contained pus, and several cases showed signs of meningeal irritation. The lateral sinus was opened, the clot removed from inside the vein, and an attempt was made to obtain free bleeding from both ends. It was always possible to get free bleeding from the upper end, but in three cases, although the sinus was followed to the jugular bulb, free bleeding was not obtained. The internal jugular vein was ligatured in the neck.

Of the thirty-one cases, twenty-two recovered and nine died. The cause of death in the nine fatal cases was as follows:—in one case death occurred from pneumonia four days after admission. This condition of the chest was present before operation. In the second case death was due to a general blood infection. Abscesses occurred in various parts of the body. The left hip and the right elbow were infected and a large abscess made its appearance in the digastric fossa. Death occurred eleven days after operation. In seven cases the cause of death was septic meningitis.

Of the twenty-two cases which recovered, four had septic complications: In one an abscess occurred in the left lung. Another case developed infection of both pleurae. The third case had multiple infections of the joints which fortunately did not go on to suppuration, while the fourth case suffered from pyuria. These four cases apparently suffered no permanent damage, and when last seen were apparently well, although the case with pyuria (a boy of twelve years) caused us some anxiety as to the ultimate outcome of the infection, but to-day the urine is free from pus and albumen.

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More than half of the cases occurred before the age of sixteen years. Seventeen cases occurred before that age, while only three were above thirty years of age. Headaches were complained of in nineteen cases. In twelve cases the headache was chiefly frontal while in the remainder it was general in character. In twelve cases this sympton was absent. Thirteen cases gave a history of sickness, but in no case was this sickness observed after admission. Cholesteatoma was found at operation in seven cases. Temperature was normal in seven cases on admission, nor at any time in the course of the disease did these cases show evidence of fever. In the remaining cases the temperature was raised, but in the young patients the temperature did not tend to show a marked remission though there was an irregular rise and fall. With regard to rigors and shivering: In twenty-one cases we could get no history of evidence of either of these two conditions. In only four cases were marked rigors present, and in three cases shivering was observed. Three cases gave a history of shivering, this shivering occurring in these cases three days, one day, and fourteen days before admission respectively, but no shivering occurred after admission.

In order to remove all the infected bone, it was necessary in twenty-three cases to expose a considerable extent of the dura up to the middle fossa region. In nine cases an extra dural abscess was found, while in four cases the dura was covered with granulations. In three cases the dura was greenish-looking and almost sloughing. The condition of the sinus wall showed marked variation. A perisinus abscess was present in eight cases. In seven cases the sinus wall was covered with granulation. In five cases the wall was sloughing, while in three cases the wall was greatly thickened. In four of the cases it was apparently healthy, though the sinus was full of clot.

With regard to the condition of the dura in the nine fatal cases, we find that in the case which died from pneumonia, there was extensive exposure of the dura away from the sinus out towards the middle fossa, the sinus wall itself being greenish in appearance. In the case which died from general sepsis there was a somewhat similar infection of the dura but the sinus wall was green. Among the seven cases which died from meningitis we find that in two of these cases a large extra-dural abscess was present, while in four cases the dura was sodden and discoloured, and in one case it was apparently healthy.

During the same period 1929-31, there were cases in which it was found necessary to expose the sinus in order to remove all the infected bone, and in twenty-seven of these cases the sinus wall was found to be abnormal. The sinus, however, was not interfered with, since there was no evidence that the contents were affected. All of these cases, however, were potential sinus thrombosis cases. In all of them recovery was uneventful, but it is interesting to compare these cases with the cases of lateral sinus thrombosis.

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With regard to ages: Six of these cases occurred before the age of fifteen, the remainder after fifteen, and thirteen occurred after the age of thirty. The temperature was normal in sixteen cases and at no time was there any evidence of fever. Rigors were absent and only in one case was there a history of shivering. Sickness was present in four cases. The dura up to the middle fossa was exposed in eighteen cases, in two of which a large extra-dural abscess was found, while in eight cases granulations were present on the dura. There were seven cases of perisinus abscess and in all cases, except one in which a perisinus abscess was present, there were granulations on the sinus wall. Cholesteatoma was found at operation in four cases.

In making deductions from this small series of cases, one must proceed with caution, but it would seem as if sinus thrombosis were more liable to occur in the early stage of acute mastoid disease in the young, that is up to the age of sixteen, than in later years. It would also appear that cholesteatoma is not an important factor in causing sinus infection in acute cases. This series certainly shows that the temperature is not a guide as to the presence or absence of sinus involvement, but where a typical septic temperature is present it indicates a general blood infection which is a late stage of sinus thrombosis. The same remark applies to rigors. Can it be that the great danger in this condition of lateral sinus thrombosis is infection of the meninges through the dura of the sinus wall, and probably more so through the dura of the posterior and middle fossa.

This series of cases certainly point that way, and on that account early operation on the infected mastoid and vein is very necessary. We must not wait for septic temperatures and rigors which, after all, are not symptoms of sinus thrombosis but of a general blood infection. If we wait, in the meantime infection may have passed through the dura into the meninges. The operation on the mastoid must be thorough in order to remove all infected bone, and to lay bare and leave uncovered any infected dura.

Dr. DOUGLAS GUTHRIE wished to know how often the temperature was taken—whether hourly, two hourly or four hourly. "Did Dr. Harper ligature the internal jugular vein in all cases?"

Dr. J. S. FRASER: "I cannot understand this paper of Dr Harper's; especially I do not understand what his indication is for operating on the lateral sinus and internal jugular vein. Personally, I never think of operating on the vein or sinus of a patient with a normal temperature. My experience is that patients with septic thrombosis of the lateral sinus always have fever. Merely to take the temperature between the time of admission (say 11 A.M.) and the time of operations (say 4 P.M. on the same day) is not sufficient. The rise of temperature may occur later. I cannot understand how Dr. Harper knows if there is thrombosis in the sinus. If a patient has acute suppurative otitis media and mastoiditis and you find the sinus with granulations on it, you should leave the wound open,

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i.e., unstitched. If the patient thereafter has a normal temperature, no rigor and no signs of metastasis, I think the best thing is to watch the progress of the case. To open the sinus when the patient has got no signs of septic absorption is, I think, bad surgery. How did Dr. Harper differentiate between the 31 cases in which he operated on the sinus and vein, and the 27 cases in which he did not? What was it at the end of the mastoid operation that made him say 'this one is a case of sinus thrombosis and requires opening of the sinus and ligature of the vein, and this one does not require it.' How did he find that out?"

Dr. JAMES ADAM: "I would like to know if there was any enlargement of veins on the same side of the head as the thrombosis. Often the veins are enlarged on the same side as the thrombosis. The whole head should be shaved in suspected cases."

Dr. RITCHIE PATERSON wished to know if Dr. Harper noted hemipallor on the same side of the face in any of the thirty-one cases. Sometimes it is a useful sign, although diagnosis is only clinched after the operation is done. He himself had noticed this marked pallor on the same side of the face in four cases of lateral sinus thrombosis.

Dr. HARPER: "I found great difficulty in many of these cases in coming to a decision as to whether the sinus was thrombosed or not. We have been told this afternoon that if the sinus pulsates then it is thrombosed. I can say quite definitely that this is not so, since I have opened sinuses which pulsated in order to demonstrate the absence of clot.

"With regard to the question of temperature: The temperatures in the seven cases mentioned were normal, and remained so, as I have already said. It is an elementary fact which I hope all of us know, that where you have a swinging temperature, the temperature will be normal at some period of the day. Dr. Fraser has told us that it is bad surgery to interfere with a sinus when the patient's temperature is normal and when there is no rigor. He would leave the sinus untouched and watch developments. In one of the cases in which the temperature was normal, and in which rigors were absent, the sinus was full of pus. In another case whose temperature was also normal, and in which rigors or shiverings were absent, there was an actual opening in the sinus wall which was sloughing, through which pus exuded. Is he going to sit back and leave these cases until he gets rigors, temperatures and metastasis? That, I think, would be worse than bad surgery. He has suggested that in a case of acute mastoid disease in which on operation the lateral sinus is found to be thrombosed, if there is no septic temperature and no rigors, we should sit down and wait and see what is going to happen. That is, we are to wait until we get signs of a general blood infection before removing the clot from the vein. This to my mind is unjustifiable. Dr. Fraser says he cannot understand this paper. I am not surprised since he has missed one of the main questions in the paper—'Can it be that the great danger in this condition of lateral sinus thrombosis is infection of the meninges.'

"With reference to Dr. Adam's remarks regarding enlargement of the veins on the side of the head: I have not observed this phenomenon, nor have I any information with regard to the pallor of the face."

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CASE 7. **Epithelial Odontome**—JAMES HARPER.—Wm. K., aged 46. Complained of swelling in the roof of the mouth on the left side, of six weeks' duration. There was no pain or tenderness. The swelling was round and smooth and of firm consistency, about the size of half a golf ball. The mucous membrane moved freely over it. There was no glandular involvement. 28.3.28.—*Operation*: The tumour shelled out fairly easily. One part was attached to the posterior edge of the bone of the hard palate. The pathologist reported "epithelial odontome." The section was shown.

CASE 9. **Case for Diagnosis**—JAMES ADAM.—*Lesion of Right Ear and of Eleventh and Twelfth Nerves.* Mrs M., then aged 60, began in November 1922 to be deaf in the right ear; Leeting started and continued. First seen 2.3.23. A small growth was found on floor of the meatus through which bare bone could be felt. A piece was removed which was not malignant. The tympanic membrane was unruptured. The mastoid was explored, but nothing abnormal was found. 4.8.23—Ear well, but for deafness and tinnitus.

Hearing.	R.	L.
CV . . .	2″ (?)	...
WV . . .	...	10′
Weber to R. . . .	...	...

Patient not seen again for six years. 31.10.30.—Complained of difficulty in swallowing saliva and of altered tone of voice. Right cord fixed; tongue protruded to right; crusts and oozing in meatus. Tympanum obscured by granulations, gullet normal to œsophagoscopy and chest to X-ray.

28.11.30.—Profuse bleeding from growth in middle ear on examination, tinnitus, no pain. 12.12.30.—Although the microscope revealed no malignancy 25 mgrms. radium with 0.5 pt. screen were put in the meatus for thirty hours. 30.1.31.—Growth shrunk, less discharge, less difficulty with saliva, cord and tongue as before, palate seems rather insensitive to touch, but no curtain sign, and shoulder movements done without difficulty. *February* 1931.—Complains of dizziness and faintness in mornings. No nystagmus, pressure 190/110 fell to 145/90 under theominal—dizziness disappeared. *March.*—Great pain in ear, bone of facial ridge bare (due to radium?) pain relieved by insufflation of anæsthesin which she has continued since. Blood picture normal. *May* 1932.—No pain, no sign of growth, slight oozing from slowly necrosing bone of facial ridge, which is bare. With noise box in left ear, patient thinks she hears loud shout; with cold caloric after two minutes, there is feeble flicker to left. No past-pointing and no giddiness, the middle ear is cicatricial. Still complains of tinnitus and fails to lateralise Weber. Right cord fixed, palsy and atrophy of

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right sterno-mastoid and trapezius, palsy and atrophy of right half of tongue. No facial palsy, no dysphagia, no growth found in epipharynx, no enlarged glands in neck.

Case 9. Dr. JAMES ADAM: "I think this is probably a case of endothelioma. I had a similar case recorded in the *Journal of Laryngology* in which the endothelioma, originating in the epipharynx, invaded the intracranial structures, and caused paralysis of the lower cranial nerves. It had also grown into the lateral sinus."

Dr. FRASER: "The case the President refers to was one of extensive infiltration of the petrous bone due to endothelioma. There was a period of more than twenty years between the onset of symptoms and death. In fact the patient died after an operation for hernia in the surgical wards."

Dr. JAMES ADAM: "The eighth and ninth nerves are not involved; though I think the tenth is involved I have not put that down because the motor part of the vagus comes from the eleventh nerve and forms the tenth in the inferior foramen, so that one must not say from the paralysis of the larynx that the tenth nerve is involved. However, the peculiar cough suggests involvement of the tenth nerve also."

CASE 10. **Five Cases of Malignant Disease of the Larynx and Pharynx Treated with Radium** — STEPHEN YOUNG.—(*a*) R. M., male, aged 48. Admitted 4th April 1932. He had no pain and very little dysphagia. The voice was husky and weak. The growth was inoperable owing to its situation. 5.4.32.—Examined under general anæsthetic. Pathologist's report: Large extrinsic carcinoma. 7.4.32.—Tracheotomy. Radium inserted into larynx—8 × 1 mgrms., 4 × 2 mgrms. for 298 mgrm.-hours. 2 × 1 mgrms. came out eight hours later.

9.4.32.—Seven needles came out, and the next day two needles came out; on 11.4.32—one out. 14.4.32.—Under general anæsthetic radium was re-inserted into the larynx—5 × 2 mgrms. and 4 × 1 mgrms. Time—78 hours. Removal 17th April.

19.4.32.—Four teeth were extracted. 25.4.32.—Tracheotomy tube was removed. This tube was never really necessary.

30.4.32.—Patient was discharged, feeling fit, with a stronger voice.

17.5.32.—Seen by Dr. Young, who reports: "Patient doing well. Small firm swelling in the region of the left false cord. No ulceration. Voice improved. No dysphagia."

Pathologist's report: "Carcinoma of the larynx."

(*b*) Geo. McI., aged 75. Trouble commenced about September 1931, when he noticed difficulty in swallowing solids, and pain in the back of the throat, with gradually increasing hoarseness and occasional regurgitation of food from the œsophagus. Had a cough for a year; this was intermittent and at times accompanied by a dirty sputum which was blood-stained. Operation on right side of lower jaw, thirty years ago. 24.2.32.—No abnormality can be seen inside the mouth on

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ordinary examination. 25.2.32.—Radium inserted under general anæsthetic—9 × 1 mgrms. and 1 × 2 mgrms. into left laryngeal tumour. Time—130 hours. Three 1 mgrms. needles came out a few hours later. 28.2.32.—Radium needles coughed up—after 65 hours.

10.3.32.—A small fibrous mass can be seen on the right false cord. The false cords can be seen, all apparently healthy. Patient looks well.

30.3.32.—Patient reported to-day and was seen by Dr. Morrison. He has no difficulty in swallowing. There is a tendency to get a spasmodic cough on going out in cold weather. Examination of the larynx reveals no sign of disease. The right cord has a dull appearance. 29.4.32.—Patient reported and was examined by Dr. Young. Condition satisfactory.

16.5.32.—Patient was seen by Dr. Young who considers he is doing well. No ulceration. Part of the epiglottis is gone. To report again in two weeks.

Pathologist's report: "Squamous carcinoma."

(*c*) Mrs J. W., aged 60. About October 1930, patient had difficulty in breathing and swallowing. Three months later she began to have severe pain in the region of the cervical vertebrae. Some difficulty in articulation. 4.4.31.—Obvious swelling on posterior pharyngeal wall. Wall pushed forward and in contact with the posterior surface of the soft palate; soft palate pushed forward and rests on dorsum of tongue; a round smooth mass, the size of a tangerine orange, was seen. Nothing abnormal was seen on anterior rhinoscopy. No glands are palpable.

9.4.31.—Palate and pharynx painted with 10 per cent. cocain. Dr. Morrison inserted 6 × 4 mgrms., 3 × 3 mgrms. and 1 × 2 mgrms. radium in platinum screening into and around the growth. Time—100 hours. Mucopurulent discharge and sloughing continued, after she was discharged on 25th April, for some months.

6.11.31.—Reported. Patient very well and no signs of disease.

Pathologist's report: "Myxo-sarcoma."

(*d*) Miss E. McA., aged 57. May 1930, had a sore throat and this was followed by a dry hacking cough. Two months later there was difficulty in swallowing and gradual loss of voice. In November 1930 she was unable to swallow solid food; pain on posterior wall of pharynx. There is abundant frothy mucoid sputum. Loss of weight.

27.5.31.—A large ulcerated mass can be seen at base of tongue. The mass runs across the tongue and down into the left pyriform sinus, the left tonsillar area is also involved. The whole of the epiglottis has been eroded away. 4.6.31.—Under general anæsthetic, suspension and insertion of radium—13 × 1 mgrms., 1 × 3 mgrms., and 1 × 2 mgrms. in platinum screening. Time—100 hours. 7.8.31.—Skiagram taken.

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Report: "The barium goes over quite easily, and there is no evidence of obstruction."

3.10.31.—Reported to-day—Examination showed ulcerated mass at base of tongue apparently healed. Left tonsillar area also quite healthy. There is a suspicious area in the region of the left vocal cord, which is immobile.

12.10.31.—Re-admitted for further radium treatment.

23.10.31.—Under general anæsthetic radium inserted—8 × 3 mgrms., in platinum screening. Time—48 hours. 1 × 3 mgrms. came out a few hours later. 11.1.32.—Patient seen at Royal Infirmary by Dr. Young.

Pathologist's report: "Carcinoma."

(*e*) Mrs. E. B., aged 48. History of "nervous" throat for years. Double swallow about a year ago. Occasional dysphagia. Has lost weight—about 2 stone during the last few months. *Examination:* no definite glands but fullness of throat suggestive of thyroid, no definite thyroid symptoms, however. No pain. With fluids, there is a considerable degree of dysphagia. Hoarseness of voice. Patient has been under Dr. Brand at the Victoria Infirmary, and he reports a small epithelioma at the entrance to the œsophagus.

12.1.32.—Under general anæsthetic, radium inserted into soft palate—8 × 3 mgrms. and 4 × 1 mgrms. for 85 hours. 1.2.32.—Examined under general anæsthetic—great swelling of left arytenoid with probable post-cricoid involvement.

1.3.32.—Radium collar applied—4 × 40 mgrms. and 4 + 20 mgrms. Removed 17th March.

21.4.32.—Examined under general anæsthetic—swelling much less, but there was still considerable œdema of the arytenoid.

28.4.32.—Skiagram taken. Report: "There is evidence of a hold-up in the œsophagus, from the level of the 1st to the level of the 3rd dorsal vertebra."

3.5.32.—Examined under general anæsthetic—impossible to pass œsophagoscope below level of 3rd dorsal vertebra. The surface bleeds readily and has the appearance of carcinoma. 5.5.32.—Gum-elastic tube containing 3 + 10 mgrms. radium was passed into the œsophagus under general anæsthetic. Removed—8th May 1932. 17.5.32.—Skiagram taken. Report: "There is very marked improvement here. A very little barium hangs about the seat of the obstruction."

Pathologist's report: "Squamous-celled carcinoma."

Case 10. Dr. CONNAL: "Might I ask Dr. Young why, in Case (*e*), the radium needles were inserted into the soft palate, when the original diagnosis made was that of 'epithelioma at the entrance to the œsophagus'—which was presumably in the post-cricoid region?"

Dr. STEPHEN YOUNG: "The case was done in two stages. The palate part cleared up entirely, and then a second stage was found."

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Dr. MARTIN: "Why was surgical removal not tried? Removal would seem to be a better method than using radium."

Dr. STEPHEN YOUNG: "In reply to Dr. Gibson—I may say it is omitted from the report that most of the cases were done by the old suspension method which I find extremely useful. It is particularly useful in getting down to extrinsic growths. They were all given a general anæsthetic and there has been no trouble (at least I have had no complaints) on the part of the patient about the tapes being attached to the cheek with adhesive plaster. With regard to Dr. Gibson's point that radium will come out after a very short time: Probably within a few days, if you proceed to re-insert the needles, you will find they are more easily retained than after the first time. Ordinary straight needles were used. In Case (*e*), this woman was absolutely unsuitable for a major surgical operation. The patient had not swallowed anything for quite a period before coming to me, and would not have stood any large surgical procedure. I consider the whole thing to be in the experimental stage and I showed the cases only to get information from others."

CASE 11. **Case for Diagnosis**—STEPHEN YOUNG.—Mrs. L. Reported 19.5.31. Complaint of hoarseness. On laryngeal examination: Fixation left cord. X-ray examination of chest, negative. 10.5.32.—Still distinct limitation of movement of left cord.

Case 11. The PRESIDENT said he thought the vocal cord was now moving normally. Probably a peripheral neuritis had been the causative factor.

Dr. STEPHEN YOUNG: "That is what I wish to know. Was it affection of the arytenoid joint or a recurrent laryngeal neuritis."

CASE 12. **Case for Diagnosis** — STEPHEN YOUNG.—Mrs. J., aged 59. Complaint of hoarseness. Laryngeal examination: Overlapping of arytenoid, the right passing internal to the left on phonation. X-ray examination of chest revealed slight aortic dilatation. Small gland right hilum.

CASE 13. **Case for Diagnosis**—STEPHEN YOUNG.—J. H., aged 47. Reported 25.9.25. Complaint of nasal obstruction with bleeding, and a history of several previous removals of polypi in different hospitals.

19.10.25.—Removal of piece for examination. Pathological report: "Rapidly growing carcinoma." Patient treated with deep X-ray therapy. Patient had a nasal hæmorrhage at end of September 1925 requiring nasal plugging repeatedly; immediately followed by facial erysipelas. This apparently caused an arrest of growth. No extension in last six years. X-ray of present condition shown.

CASE 14. **Case for Diagnosis**—STEPHEN YOUNG.—Mary S., aged 24. Recurrent ecchymosis of right eyelid and over right cheek

https://doi.org/10.1017/S002221510003797X Published online by Cambridge University Press

occurring once in three weeks or a month. Previous history some years ago of a knock on the face (a fall). Examination 9.10.31.—Slight septal deflection to the right. Mild ethmoiditis on the right side. X-ray examination of the sinuses—nothing definite. Operation: submucous resection of septum, removal of part of right middle turbinate. Condition of face has not been improved.

Case 14. Dr. DOUGLAS GUTHRIE: "What led Dr. Young to a diagnosis of 'mild ethmoiditis'? There was nothing definite found by radiograph. One frequently sees cases which have been diagnosed as ethmoiditis, in which there is nasal discharge, but in which the radiograph appears negative. On what grounds is the diagnosis based?"

Dr. FRASER: "This appears to be a case of streptococcal infection of the skin and subcutaneous tissues, not connected in any way with the nose. I should say the case belongs rather to the dermatologist than to the rhinologist."

Dr. Martin suggested that this was a case of angeio-neurotic œdema co-operated with menstrual periods. These cases do not show much œdema on the face, but this is more marked on the hands and ankles and the condition stops very often at child-birth. They are now treating them with hormones (as suggested by a German physicist) with quite good results. He thought the case shown was probably menstrual in origin. The same thing has been described in the pharynx and in the neck, and the same alteration is quite well known.

Dr. GIBSON: "Does Dr. Martin suggest that all cases of angeio-neurotic œdema are menstrual?"

Dr. STEPHEN YOUNG: "That swelling is there to-day and never quite goes away. There are certainly periods of exacerbation. She was sent with a complaint of nasal obstruction and hæmorrhage from the nose. But it does not appear to me like angeio-neurotic œdema. It is an ecchymosis."

Dr. GARDINER: "I would suggest that Dr. Young is on the right track. From the history of the case I should say it was due to ethmoiditis."

CASE 15. **Temporo-Sphenoidal Abscess: Operation, Recovery**—R. A. GRAY.—D. P., male, aged 13. History of discharge from left ear of many years' duration. Original disease—measles. Complains of pain in the ear with very severe frontal headache. *Examination* of ear shows profuse discharge with disappearance of the drum membrane. No tenderness on pressure over mastoid, no post auricular swelling. 19.2.32.—Radical mastoid operation. Dense outer bony cortex with pus under pressure in the antrum. Middle fossa and lateral sinus exposed: Cholesteatoma found; dura looked healthy. Pulse and temperature normal. 20.2.32.—Still complains of severe headaches. 21.2.32.—Headaches more severe. Face had worried expression: slight facial paralysis to opposite side. Patient misnamed common objects.

https://doi.org/10.1017/S002221510003797X Published online by Cambridge University Press

Complained of diplopia in upper field of vision. More of the bone was removed over the tegmen antri. An incision was made through the dura into the temporo-sphenoidal lobe. A large abscess was evacuated and drained with a rubber tube. 7.3.32.—Patient again complained of severe pain in the head. The abscess cavity was examined and a large quantity of pus evacuated. Ophthalmic surgeon reports: "Intense optic neuritis of the right eye with hæmorrhages into the left retina." Patient now well and in convalescent home.

Attention is drawn to the fact that all along temperature in this case has been normal.

CASE 18. **Temporo-Sphenoidal Abscess complicated by Albuminuria: Operation, Recovery**—J. C. WATT.—Mrs C., aged 26. Admitted to medical ward April 1929 with generalised œdema and albuminuria. Discharged in June as improved. *July* 1929.—Readmitted medical ward with recurrence of œdema, headache, mental slowness, and confusion amounting almost to coma and very marked albuminuria. Marked discharge from left ear of four months' (?) duration. Discharge lessened suddenly and she was admitted to throat, nose and ear wards on 23rd July 1929. *On admission*: Patient was very dull, œdematous and stupid-looking. There was slowness in answering questions and she complained of intense headache. Albumin copious in urine. T. 98, P. 84, R. 22. Thick foul pus filled meatus, slight pain but no swelling over left mastoid. Pupils equal and reacted to light. Reflexes sluggish but present. 25.7.29.—Owing to poor general condition, gas and oxygen anæsthesia was used and the mastoid was opened. Bone was dense and sclerosed throughout. Pus and slight caries round lateral sinus. Slight caries over middle fossa. Caries removed as there were granulations over middle fossa, and dura sinus leading to temporo-sphenoidal lobe. This led to abscess of lobe containing about 1 oz. of thick malodorous pus. This was drained and a drainage tube was inserted. Owing to the condition of the patient, the wound was left open to be allowed to granulate and epithelialise.

27.7.29. — Patient definitely improved and mental cloudiness markedly less. 30.8.29.—Patient dismissed well and wound healed.

4.3.32.—Patient reported with fluctuant swelling over site of left mastoid antrum. This was opened and a considerable deposit of new bone and pus found, extending to the remaining cells of the tip. 5.3.32.—The radical operation was completed and a flap cut and stitched. 29 3.32.—Patient dismissed well.

Cases 15 *and* 18. Dr. FRASER: "The only thing which strikes me in regard to Case 15 is that attention is drawn to the fact that the temperature was normal. I do not see why it should not be normal. Patients may have a large abscess over the mastoid and yet they do not have fever.

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I only want to know whether this absence of fever is a point that is made by Dr. Gray, as if he was surprised at it."

Dr. R. A. GRAY: "The point of mentioning the temperature in this case was that the mastoid infection was exceptionally acute, the bone greatly affected and the disease extended over a very large area. The abscess itself was very large, and in such cases sometimes the temperature goes up. This case did not show a temperature in spite of its being taken two hourly."

CASE 16. **Serous Meningitis**—R. A. GRAY.—J. B., aged 49, male. Complained of discharge from the right ear of fourteen years' duration with pain in the ear, headache, vertigo and shivering. Tenderness on pressure over the mastoid with rigidity of the neck. Opisthotonus and positive Kernig. 23.10.31.—Radical mastoid operation performed. Cholesteatoma found: middle fossa and lateral sinus exposed by necrosis. Middle fossa dura was slightly reddened and bone was removed until normal dura was found. Headache, neck rigidity, and Kernig gradually cleared up. Temperature on admission was 99° but came down to normal in 24 hours. 8.5.32.—Patient's general condition good, but still complains of slight vertigo.

Dr. FRASER: "I would like to know why lumbar puncture was not done in this case."

CASE 17. **Cases of Chronic Hyperplasia of the Upper Jaw**—R. A. GRAY.—(*a*) Mabel J., aged 15 years. 11.3.27.—Patient noticed that the right side of the face started to swell about two years ago. No pain, and the swelling was supposed to be due to a blow received in a cycle accident. The cheek was bruised and painful for a few days. The right antral region was opaque to X-ray. The bone was exposed at operation in the canine fossa. The antra were obliterated by a soft bony tumour which involved the floor of the orbit and extended into the malar bone laterally. Pathologist reports: "Material consists of a mass of fibrous tissue infiltrated with bone."

(*b*) Geo. McK., aged 36. Complained of swelling of four years' duration involving left upper jaw. At operation, the bone was soft in character; the antral cavity was obliterated by swelling. Pathologist reports: "Fibroma."

(*c*) John W., aged 14. Hard swelling of right upper maxilla of one year's duration. No history of injury. 20.1.32.—A large bony tumour about the size of a hen's egg was found which involved the anterior process of the superior maxilla, infiltrated the alveolus below and spread backwards towards the malar bone. The bone was dense on the surface but softer towards the centre. Pathologist reports: "Chronic hyperplasia of the upper jaw."

Case 17 (*b*). Dr. FRASER: "Is this not a case of osteitis fibrosa?"

https://doi.org/10.1017/S002221510003797X Published online by Cambridge University Press

Dr. MARTIN: "How did the pathologist get the report of 'Chronic hyperplasia of the upper jaw?'"

Dr. R. A. GRAY: "With reference to the first two cases, I can account for them. They were sent across to the Pathological Department with a bald statement. The third case specimen was sent across with a fuller report, and that would account for the pathologist introducing the part about the upper jaw, and possibly influencing his diagnosis. In none of the three cases were we able to find any evidence of a septic focus. The three cases were identical clinically, and the complaint in each case was simply swelling of the face. The other point was that it was exceptionally difficult to tell where the diseased bone commenced or finished. One case is comparatively recent. About the others—one is of four years' duration (*b*), and the other (*a*) of seven years' duration. I have seen both patients and they have not complained of any further swelling. I wished to know if any member had experience of these cases actually recurring, or if I can get any help in their treatment, especially with reference to the amount of bone which should be removed."

CASE 19. **Zygomatic Mastoiditis with extensive involvement of the Zygoma**—J. C. WATT.—M. C., aged 9 years. Admitted 14.3.31, complaining of purulent discharge from the left ear—duration not known—with large swelling in front of and behind the auricle. Temperature normal. Pulse raised. Conservative mastoid operation performed. Large cellular mastoid with cells full of pus and considerable necrosis of bone. The zygomatic cells were infected, the infection having spread along these cells to the outer edge of the orbital cavity. The temperature remained normal throughout.

Case 19. Dr. J. C. WATT: "This case was shown as an example of disease of the mastoid extending along the zygoma. Usually in such cases the infection is found along only a short part of the zygoma, but in this case the infection spread along to involve the cells on the outer aspect of the orbit. In reply to the President: There was no extension of mastoid cells in any other direction."

CASE 20.—**Ranula**—J. C. WATT.—Jean McN., aged 13. Seen by school doctor, who found a large swelling on the floor of the mouth about the size of a golf ball. The patient complained of no discomfort though speech was very thick. 11.11.31.—A large ranula was removed from the floor of the mouth. Mucous membrane moved freely over the swelling anteriorly, but posteriorly the wall was very adherent to the underlying tissues. No recurrence.

CASE 21. **Paralysis of Left Vocal Cord: Aneurism of the Aorta**—J. C. WATT.—Ed. S., aged 40. Loss of voice of three months' duration with complete fixation of the left vocal cord. X-ray examination of the chest shows an aneurism of the aorta.

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Case 21. Dr. J. C. WATT: "This case illustrates the point raised by Dr. Reynolds, that the clinical history must be taken into consideration with all special reports. The actual X-ray plate shows a definite shadow of the aortic region and the X-ray report was aneurism of the aorta. One point was that he had pain extending gradually to the top of the sternum. At a later date he was admitted to a medical ward with very acute distress, dyspnœa and a gradual involvement of his right cord. No post-mortem examination was obtained but I think that it is possible that a tumour was present in the mediastinum, either overlying or adherent to the aorta.

CASE 22. **Case for Diagnosis**—J. C. WATT.—A. U., aged 58, male. Complaint of hoarseness of three years' duration with slight pain on swallowing. Pharynx appears normal. Ulceration of the left ventricular band and inter-arytenoid region. The left cord could not be seen, owing to swelling of the ventricular band. Edges of the ulcer (?) syphilis. Wassermann reaction negative after provocative doses of salvarsan. Sputum negative for tubercle bacilli after repeated examination. Portion removed for examination. Pathologist reports: "Chronic granuloma, typical of tubercle with giant cells." X-ray of the chest. Radiologist reports: "Tuberculosis in both apices." Tubercle bacillus cannot be found, and the opinion of members is invited as to whether the laryngeal condition is solely tubercular or whether some other condition is superadded.

Case 22. Dr. FRASER: "I suggest that this is a case of amyloid disease of the larynx, *i.e.*, a very mild type of tuberculous disease in which infection passes from the ventricle of the larynx into the substance of the false cord and causes it to enlarge and hide the true vocal cord on that side. I have seen three similar cases."

Dr. J. C. WATT: "Since the report of this case was submitted for the agenda the question of tubercle bacilli in the sputum has been reinvestigated. In the last three years it has been examined eight or nine times with negative results. This last time it is reported as positive, and the pathologist ventures the remark that he has never seen so many tubercle bacilli in one field."

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