SOCIETIES' PROCEEDINGS

ROYAL SOCIETY OF MEDICINE—SECTION OF LARYNGOLOGY

May 4th, 1945

President—C. GILL-CAREY, F.R.S.C.ED.

Clinical Meeting

Eleven Cases Presented after Laryngectomy: Ability to Talk.—LIONEL COLLEDGE.

THE PRESIDENT congratulated both Mr. Colledge and those who had taught the patients on the superb result. He could not think of any of his own patients who could compete with those of Mr. Colledge. He would like to ask Mr. Colledge how he set about teaching them and whether they had lessons before the operation, as had been advised in certain quarters.

NORMAN PATTERSON had himself tried and failed to accomplish what Mr. Colledge had succeeded in doing, although he had carried out numbers of laryngectomies.

MUSGRAVE WOODMAN said the mutilating effect of the operation had brought discredit on laryngectomy, but if patients could produce such a voice as did those of Mr. Colledge that feeling should disappear. Many cases of the kind in question went into the hands of radiologists and radium experts, but he thought that the operation should still have its place in surgery. He had treated a fairly large number in his time, and he could not remember any where the voice was so good as in Mr. Colledge's cases.

J. C. HOGG said he had learned a great deal from this excellent series of cases. On talking to them he had learned that apparently there was no need for any elaborate or specialized teaching afterwards; in fact, they very kindly told him that the secret of the whole thing was a bottle of soda water and a boiled sweet to suck.

E. COWPER TAMPLIN said that his experience had been that patients treated by radium or deep X-ray were usually fairly miserable. Mr. Colledge's, on the other hand, were a happy, laughing crowd, and that was one very striking difference, of great importance to the patient. Another point, to which Mr. Colledge himself had drawn attention, was that the hemi-laryngectomy case did not talk as well as the "total".

LIONEL COLLEDGE, in reply, said the President has asked how the patients were taught. Some taught themselves, some were taught by Mr. MacMahon, and some were taught by the ward sister who had been present that afternoon. The fact that they could talk was nothing new. He saw in 1914 in the clinic of Professor Gluck a man who talked very well, but he was looked on as a *lusus naturae*. All efforts at that time to get patients to talk were devoted

https://doi.org/10.1017/S0022215100045874 Published online by Cambridge University Press

to producing an instrument by which they could talk; but gradually it had been found that nearly all the patients—not quite all—could be made to talk without any artificial aid, and gradually the artificial larynx had been dropped. They simply swallowed air and produced vibrations in the pharynx by belching.

The essential point was that they must produce vowel sounds if they were going to talk intelligibly. The vowel sounds were produced in the larynx and the consonants by the lips and tongue. If patients just whispered, the sounds which they produced were without vowels and were largely unintelligible.

He did not think that it was either feasible or necessary to train them before the operation. It had been recommended by an American writer recently, who suggested that three or four days should be taken up in training them beforehand. An effervescing drink helped beforehand, but when the cricoid was in position the pressure produced by the cricoid drawn back by the inferior constrictor made it very difficult, and the method of talking adopted was very much easier without a larynx. A patient who had been operated on three weeks ago went home a day ago and was beginning to talk already almost as well as any of the patients who had given the demonstration.

THE PRESIDENT said the demonstration had been most stimulating. It had occurred to him that it might be tiring to the patients to produce their voice, but he had asked several of them and they assured him that they did not find it so.

Ligature of the Internal Maxillary Artery through the Antrum for Uncontrollable Epistaxis (Specimens and Instruments).—E. D. D. DAVIS.

E. D. D. DAVIS said that it was very rare to have to tie the internal maxillary artery. It was a good surgical maxim to attack the bleeding point and if ligature of a main artery was necessary it should be done as near the bleeding point as possible. He had ligatured this artery only once in a case of uncontrollable epistaxis. About six years ago a patient had nearly died of severe epistaxis and he thought the bleeding point was at the posterior end of the middle turbinal. The patient survived but after an interval of four years he had another severe epistaxis and the hæmoglobin was reduced to 38 per cent. He tied the internal maxillary artery through the antrum then. The patient made an excellent recovery in spite of arteriosclerosis and had had no epistaxis for more than twelve months. The internal maxillary artery may have to be ligatured to arrest hæmorrhage after an injury or to control bleeding during nasal operations. It had been tied on many occasions to diminish hæmorrhage during nasal operations but he himself had never found it necessary for this reason. Some years ago it was the custom to ligature the external carotid before removing a growth of the maxilla but in his experience this procedure made no appreciable difference to the amount of hæmorrhage.

Caesar Hirsch had ligatured the internal maxillary artery through the antrum on three occasions for uncontrollable epistaxis.

The specimens and instruments shown illustrated the technique clearly. The small aneurysm needle was recommended and ligation through the antrum was not difficult.

Surgeon Commander Passe had ligatured the internal maxillary artery

https://doi.org/10.1017/S0022215100045874 Published online by Cambridge University Press

six times. He tied the artery at the posterior border of the ascending ramus of the mandible as it emerges from the parotid gland five times. On the last occasion he made an incision in the mucosa of the mouth close to the tuberosity of the maxilla. The artery was found lying on the pterygoid plate and was pulled forward into the wound by a hook.

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NORMAN PATTERSON asked what the advantage was in tying the internal maxillary as compared with the external carotid. In a case of very severe hæmorrhage after operation on the antrum, he said, the external carotid was ligatured and the bleeding stopped at once. It was comparatively easy to tie. It did, however, leave a scar on the neck. He could not see the advantage of the complicated procedure described when it was possible to tie the external carotid. Some years ago he found out that it was easier to ligature this vessel by making an incision in the posterior part of the sheath, drawing the internal jugular forwards and inwards, and getting access to the artery from behind rather than from in front. It was not necessary to sever any veins at all.

R. G. MACBETH said that there had recently been a number of cases of the type mentioned by Mr. Davis at the hospital for head injuries, St. Hugh's College, Oxford, and there they had found it easy to control the situation by tying the anterior ethmoidal artery in the orbit.

E. D. D. DAVIS (in replying to Mr. Patterson): Whenever I have ligatured or seen the external carotid ligatured for growths of the maxilla it has had no appreciable effect on the bleeding. The result of this ligature on the hæmorrhage can be tested by applying and releasing a clip placed on the artery. The last time I ligatured the external carotid it took three-quarters of an hour. It was difficult because the common carotid bifurcated high up in the neck and it was surrounded by a plexus of veins.

Ligature of the internal maxillary artery through the antrum is easier. It can be done in twenty minutes and it has the advantage of being nearer the bleeding point. For example it is better to ligature the anterior and posterior ethmoidal arteries for epistaxis than the internal carotid.

Tumour of the Left Ethmoid.—MYLES L. FORMBY.

Signalman A.P., aged 18. *October 1943* complained of watering from the left eye. Lacrimal duct probed and dilated. *April 1944* he is reported to have had a small cystic swelling in the region of the inner canthus of the left eye and a smaller and harder swelling on the infra-orbital margin at its inner extremity. In *December 1944* the swelling had increased slightly but the lacrimal duct was said to be patent. There was a fluctuant swelling near the inner angle of the left orbit from which a few drops of watery mucopus were aspirated. Culture yielded pneumococci and Koch-Weeks bacilli. This swelling did not appear to communicate with the lacrimal sac. Anterior

https://doi.org/10.1017/S0022215100045874 Published online by Cambridge University Press

rhinoscopy revealed a vascular mulberry-like tumour in the anterior part the left middle meatus. Histological examination of a portion removed biopsy was reported as showing " widespread and generalized invasion well-defined columns of cells some spindle-shaped, with little cytoplasm hyperchromatic nuclei, with few mitotic figures which are malignant and few lymphocytes surrounding but not infiltrating the malignant cells ".

An external ethmoidectomy was performed on *February 12th, 1945*. The swelling was found to be firm, projecting through the lamina papyracea and everting the nasal process of the maxilla. It separated readily from adjacent structures but no trace of the lacrimal sac could be identified. The opening into the nasal cavity was enlarged, and a mass of firm but soft polypoid tissue was removed from the ethmoid region. The left middle turbinal was found flattened against the nasal septum. The tumour appeared to originate in the lateral mass of the ethmoid and to displace, without infiltrating, adjacent structures.

Microscopically the growth consisted of groups of closely packed cells with small spherical nuclei and little cytoplasm. The groups are separated by a fibrous stroma. Mitoses are few. In some parts of the section there was definite evidence of infiltration and the growth is histologically malignant.

It was quite definite from the section that the tumour was malignant. It was growing in a manner which suggested that it was rather pushing strucures out of the way, and if it was malignant it was only locally malignant. If it was a carcinoma it was surprising, because the patient was only 18½ years of age. It was just three months since the patient was operated on, and they proposed to let him go another three months unless any member had an alternative suggestion to make and a convincing reason for doing otherwise.

LIONEL COLLEDGE thought it might be regarded as a basal-cell carcinoma.

Extensive Pharyngeal Ulceration.—IAN ROBIN.

W.G., male, aged 24. Extensive pharyngeal ulceration with necrosis of the soft palate and fauces was first noticed over three years ago. Very little change in the clinical condition in the past two years. Chest : X-ray normal. Blood W.R. negative. Three biopsies have all shown " simple granulation tissue only ". Swabs have grown on culture *Staph. aureus* (penicillin-sensitive), and non-hæmolytic streps. Blood vitamin C content normal. Blood-count shows simple " secondary anæmia " with Hb% varying between 50 and 85. For many years the patient has suffered from severe ulcerative colitis. This has been treated medically, and also by appendicostomy. X-rays of the colon show marked " pipe-stemming ". The small firm gland in the right side of the neck has been present for at least seven years. The patient suffers also from infantilism, for which he has received various hormones.

Treatment of the pharygeal condition has included local and parenteral arsenic ; local and parenteral penicillin ; large doses of vitamin C ; iron ; frequent blood transfusions ; nearly all of the sulphonamides both locally and by mouth.

The patient is now awaiting admission to hospital for an ileostomy, and subsequent colectomy.

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V. E. NEGUS said he had at the present time a case of a similar type under his care, and he had seen one or two in the past. Some had been spoken of as malignant granulomata and others had been given various names. The man he had in mind came from the Army in North Africa, but there had never been an accurate diagnosis. The condition was not syphilitic nor tuberculous nor was it reticulosis. It improved a little with penicillin, which was given both by injection and in pastilles, but it improved only because that got rid of the secondary penicillin-sensitive organisms. It extended over much the same area as Mr. Robin's case. The patient was now having intrabuccal irradiation; the ulceration appeared to be healing rapidly. Although it might theoretically be the wrong treatment for an inflammatory process there did seem to be a good result. Diathermy was not a good form of treatment in this case, though it had been tried.

G. EWART MARTIN said he had seen three almost identical cases. So far they must admit failure in diagnosis of these cases. A tentative diagnosis of reticulosis was made in two cases but he was certain this was incorrect. The third case, a woman of 28, developed a small ulcer on the side of the tongue making swallowing painful. The ulceration continued and eventually the tongue split in two. Serial sections apparently showed simple granulation tissue and every possible blood test had been negative. There was no definite agranulocytosis. The patient became pregnant, the baby was born without any difficulty and was perfectly healthy. The ulceration continued slowly causing a great deal of pain on swallowing. The patient lost and gained weight alternately. Deep X-ray therapy was tried and the upper part of the ulcer healed but it appeared on the posterior pharyngeal wall, passing down as far as the epiglottis. A superficial ulcer appeared on the skin over the thyroid cartilage. Pus from this ulcer showed no definite infection and it eventually healed with deep X-ray therapy. The blood-count has varied. For some time there was a general anæmia and this responded to blood transfusions. Since five blood transfusions were given the ulcer has been partly controlled. The patient was very bright and had put on weight but talking and swallowing were difficult. The diagnosis had failed.

Carotid Body Tumour.—IAN ROBIN.

W.H., female, aged 22. Noticed three years ago a firm swelling behind the angle of the mandible about the size of a walnut, with the suspicion of an extension upwards and deeply; marked transmission of carotid impulse. Patient found to have paralysis of the left vocal cord, left side of soft palate, left trapezius and sternomastoid muscles, left side of tongue, and left cervical sympathetic. No abnormality in nasopharynx, pharynx or larynx. Blood picture normal.

Diagnosis of carotid body tumour made. In *September 1944* Mr. Hamilton Bailey excised the tumour, after preliminary ligature of the carotid artery. The tumour was well encapsulated, but extended up to the base of the skull, and actually had to be " chipped off " the bone.

Microscopy confirmed the nature of the tumour.

https://doi.org/10.1017/S0022215100045874 Published online by Cambridge University Press

Bilateral Abductor Palsy following Thyroid Operation Two Years Ago.—N. A. JORY.

L.F., female, aged 56. Two years ago had thyroid operation, after which she had difficulty in breathing. Two months ago attended hospital on account of this. Seen to have bilateral abductor palsy of larynx with stridor and cyanosis. Phonation good. One month ago admitted to hospital, and low tracheotomy performed.

V. E. NEGUS said that Sir StClair Thomson, who had strong views on the subject, advocated permanent tracheostomy. If the patient had a properly constructed tube, of the right shape, and if that tube were properly shaped at the outer end, it was possible to have it made with a valve which gave a wide aperture. The valve did not then project; such tubes were now made and were very convenient because they were out of sight. There was also very little trouble in inserting one in the trachea.

H. V. FORSTER said that he had had referred to him a case like the one under discussion. The bilateral abductor palsy had followed an operation on the thyroid gland. He saw the patient from time to time, but remembering the teaching of the late Sir StClair Thomson, would continue to encourage her to wear her tracheotomy tube and not to submit to any kind of intra-laryngeal operations.

J. C. HOGG said that he agreed with what speakers had said with regard to permanent tracheotomy tubes. He had a patient who had this disability after a thyroid operation and in due course he had fitted her up with a flap valve which had enabled her to speak but she had refused to go on with it because she could breathe in through it but owing to paralysis of the cords she could not breathe out properly. She decided that it was not good enough and she put a finger on her tracheotomy tube and one would not have known that she had a disability at all.

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