SOCIETIES' PROCEEDINGS

ROYAL SOCIETY OF MEDICINE—SECTION OF LARYNGOLOGY.

November 2, 1923.

President—Mr H. J. BANKS-DAVIS, M.B., F.R.C.P.

Notes on Fourteen Cases of Intrinsic Cancer of the Larynx, with Lantern Demonstration of the Pathological Anatomy. By J. S. FRASER, M.B., F.R.C.S.Ed., and DONALD WATSON, M.B., F.R.C.S.Eng.

The paper and discussion will be published in the *Journal of Laryngology and Otology*, February 1924.

Case of Extensive Intrinsic Carcinoma of the Larynx in a Young Female Patient, treated by Complete Laryngectomy—Sir JAMES DUNDAS-GRANT, K.B.E., M.D.—Female, aged 29, had, for several years, suffered from increasing hoarseness and more recently from extreme pain when speaking and to some extent also on swallowing. Ultimately, difficulty in breathing and laryngeal stridor developed. The case had been looked on as one of tuberculosis, but when referred to me at the Throat Department of Brompton Hospital it showed such a large rounded though irregular swelling, almost completely concealing the interior of the larynx, that I thought it more likely to be neoplastic than tuberculous. I removed a portion for microscopic examination and received the report that it presented the characters of typical carcinoma.

I performed laryngo-fissure, but finding at once that the growth was too extensive for removal by that means, I carried out complete extirpation, having fortunately obtained permission to do so, if necessary, the larynx being detached posteriorly from below upwards.

I introduced a gum-elastic feeding tube through the nose, and owing to the presence of a fistula at the upper point of attachment of the trachea, this had to be retained for between five and six weeks, the fistula having taken five weeks to close. To prevent the dripping of liquids from the wound area and pharynx into the trachea the tracheotomy tube was "jacketed" with ribbon gauze, but afterwards a folded strip, moistened at first with iodoform emulsion but later with red lotion, was introduced above the tube and renewed several times a day.

The patient can now swallow "anything," is putting on flesh and feeling quite comfortable. She has always been of a very talkative

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disposition, and, in her occupation in a draper's shop, has had to use her voice a great deal in the midst of much noise, in an atmosphere loaded with dust and fluff from the materials she handled. She can make herself so well understood, without any artificial apparatus, that she can go about and do her shopping alone.

Mr L. COLLEDGE said that owing to Sir St Clair Thomson's kindness he had had some experience of these operations. The condition was unusual in the female sex, but Sir St Clair and he, however, had operated together on three successive days, upon three women with intrinsic cancer of the larynx. The notes did not state whether preliminary tracheotomy was done ; if that were done, it was easier to remove the larynx from above downwards than it was to turn it up. In two of the last four cases operated upon from above, he had found that tracheotomy gave no trouble at all. There were several reasons for doing that operation ; the trachea could be amputated at the exact level desired ; it could be cut away to meet the skin flaps accurately. If Sir James had done that, he might have been spared some anxiety in the after-treatment, as it was stated in the notes that there was a good deal of tension on the stitches. If the trachea had torn away from the flaps, the case would most probably have been lost. A further reason for what he had said was, that the operation from below was, to some extent, a blind operation, as one could not see at what level one was dividing the pharynx, nor see the exact position of the laryngeal opening, nor the distribution of the growth. A reference was made in the notes to feeding the patient, the exhibitor stating that he retained the gum-elastic feeding tube for five or six weeks. He (Mr Colledge) had not found it necessary to retain the feeding-tube more than twenty-four hours, and it was passed through the mouth each time the patient was fed. Usually there had been some leakage, but it did not affect the wound in any way. In one case in which Keen's operation was done, healing was by first intention, and there was no leakage. He did not think the patient need be put to the inconvenience of having the feeding-tube retained in the nose. Sir James seemed to have had some difficulty with the tracheotomy tube. He (the speaker) showed the tube he himself used, a Lombard's tube, with extension devised by Professor Moure. This kept the inner tube well away, so that it could be changed by the nurse without trouble. He also showed a tube, designed by Mr Mayer, which could be worn by the patient indefinitely. It had a pilot which enabled it to go in and out easily, an important point when neither surgeon nor nurse was available. He (Mr Colledge) showed a model of an artificial larynx which Dr Tapia of Madrid invented, which was simple and light. Inside was a piston which was held down by a light rubber band. These tubes were now made by Mayer and Phelps.

Sir WILLIAM MILLIGAN said that the operation had been especially successful in regard to the voice ; the patient could produce a very fair pharyngeal voice, and, with the instrument, a fair laryngeal voice. He thought there must be much uncertainty as to the frequency with which malignant disease affected the larynx in females. The patients in the last two cases upon which he had operated were females, and a fair proportion of all his cases had belonged to that sex. With regard to the question of

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recurrence, he was not certain what Mr Tilley's theory was, nor was he certain that what was termed a recurrence after seventeen years could be considered a recurrence. He thought that in such cases there was another new growth. In a case in which he did total laryngectomy, the patient lived for ten years quite comfortably. He came again at the end of that time for what was diagnosed as hydronephrosis, but the condition was, post-mortem, found to be epithelioma of the bladder. In these operations the danger largely centred round the anæsthetic. What anæsthetic was used in this case, and had Sir James ever done total extirpation of the larynx under local anæsthesia? He (Sir William Milligan) was sure a proportion of these cases died of pulmonary complications, and it was an important question as to whether this could be avoided by using a different method of inducing anæsthesia. At the Manchester Royal Infirmary, in several such cases, rectal anæsthesia had been tried. In the first, the patient did remarkably well from every point of view; but the second and third were not so successful. He had not himself tried to extirpate the larynx under local anæsthesia, but he knew this had been done. One of his cases died within twenty-four hours of acute œdema of the lungs, and two others from pneumonia. In these, chloroform had been used.

Dr JOBSON HORNE thought the term "recurrence" had been used loosely. He did not think the appearance of malignant disease in the cervix uteri after removal of epithelioma of larynx could be called a recurrence of cancer of the larynx. And the terms "intrinsic" and "extrinsic" were inexactly used. Extrinsic cancer of the larynx was not uncommon in women, but intrinsic cancer was very rare among them. The present case was not one of intrinsic cancer; the specimen submitted was extrinsic in origin, and had subsequently broken down within the larynx.

Dr IRWIN MOORE asked for a more exact history of this case: for instance, the number of years in which the hoarseness had been present, and the question of tuberculosis of the lungs. Why was the case mistaken for tuberculosis in the first instance?

Sir ST CLAIR THOMSON asked members to refer to the *Proceedings*, May 1912, v. (Section of Laryngology), pp. 151-3, and compare a case there with the case now shown. It was that of a man, aged 28, who was admitted to a sanatorium with the diagnosis of tubercle. When shown at the Section, members could not make a diagnosis, and Sir Felix Semon said a diagnosis was impossible; there was perichondritis, and it might have been tuberculous, traumatic, or syphilitic. It proved to be subglottic malignant disease. He (Sir St Clair Thomson) made an exploratory laryngo-fissure, but the disease had passed between the cricoid and the thyroid, and nothing could be done.

Sir JAMES DUNDAS-GRANT (in reply) said he made it clear in the printed Agenda notes that he thought he might have avoided this prolonged fistula, if he had not cut off the trachea so short. This was to get below the tracheotomy cut. On a former occasion he had bevelled the trachea, but he thought that took away some of the spring of the tracheal rings, and therefore he cut it straight across and bent it, rather than cut it

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obliquely. The gum-elastic feeding-tube did not cause any great discomfort to the patient ; it was taken out from time to time, and re-inserted, care being taken that it did not come down through the fistula. The purpose of the jacketing of the tube was to make it press on the little fistula. The substitution, afterwards, of a strip of gauze answered very well, and the patient showed no signs of pneumonia. She had complained of hoarseness for several years, but the exhibitor saw her for the first time shortly before the operation, when, for purposes of diagnosis, he thought it right to remove a piece for microscopical examination. If this had been done at an earlier stage and the diagnosis established, the disease might, as he had hoped, have been removable by simple thyrotomy. Fortunately he had obtained permission to do the major operation if found necessary. The anæsthetic used was chloroform, and it was administered through the mouth, then through the tracheotomy tube, by Junker's apparatus. He had never employed the rectal method. A fair proportion of his cases of intrinsic epithelioma had been in females, and "post-cricoid carcinoma" was essentially a woman's disease. He did not agree with Dr Jobson Horne that the growth in this case was originally extrinsic ; it clearly started in the right vocal cord. The members must have observed the talkativeness of the patient. In a case which Sir Charters Symonds and he had had the patient's trouble seemed to have been due to having to lecture to members of the Air Force in the noise and bustle of a depot. Sir James Dundas-Grant (in reply to Dr Irwin Moore) agreed as to the "deplorable" mutilation inflicted in this case. He regretted that the disease had not been previously diagnosed in time for it to be removed by thyrotomy. It was a painful moment for him when he had to decide to carry out the major operation on this young woman.

Case of Double Nose—F. F. MUECKE, C.B.E., F.R.C.S., and H. S. SOUTTAR, C.B.E., F.R.C.S.—Child, aged 3, was sent to me from Manchester in July with a condition which, so far as I am aware, is quite unique. She had two completely formed noses side by side, the right one being more central and larger than the left. Each nose had its own septum, two nostrils, and well-formed alæ nasi. At the root of each nose and on its mesial aspect was a minute, round depression, the morphological meaning of which it is difficult to determine. They may have been abortive eyes, but I am more inclined to think that they represent the minimal form of fissura lacrimalis described by Mr Bishop Harman.* I do not think that the whole of the deformity can be explained on developmental grounds, and in my opinion the smaller nose is that of an included twin. The child presented no other abnormality, the lips, jaws and palate being perfectly formed and perfectly symmetrical.

Mr SOUTTAR said that the surgical problem presented was that of forming one mesial nose, and as it was evident that the internal structure was of quite as much importance as its external appearance, he invited

* *Trans. Ophthal. Soc.*, 1903, xiii., p. 256.

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Mr Muecke to co-operate with him in its construction. The method adopted was to excise the mesial halves of both noses, including the nostrils and their mucous lining, and to bring the two septa together. On a full exposure it was found that whilst the smaller nose was provided with a well-developed bony septum, that of the larger nose was cartilaginous. The base of the bony septum was therefore divided, brought over to the middle line, and the two septa fixed firmly together. The nose itself and the columella were formed with ease. The child now had a somewhat broad and flattened mesial nose with two nostrils which function perfectly. It was intended, at a later date, when she had reached puberty to make what further adjustments might be necessary from the cosmetic standpoint. He thought the case was a good example of the advantages of combination between the general surgeon and the specialist.

Mr MUECKE stated that the four nostrils in the double nose went right through. The two lateral choanæ were very large, the two medial very small, and the left septum was the better of the two. This was fractured and stitched medially. Both nostrils were now excellent; there was a complete mucous membrane on each side. She now had a normal nose, a little broader than usual.

Case of Functional Aphonia, Voice restored by application of Negus' Hand-pressure and Bárány's Noise Machine—Sir JAMES DUNDAS-GRANT, K.B.E., M.D.—A woman, about 30 years of age, was instructed to press her hands together against traction exercised by a nurse holding them apart. When she did this actively, the vocal cords and then the ventricular bands became approximated and the voice was restored to some extent. When the sounding noise machines were placed in her ears her voice became quite loud.

Dr JOBSON HORNE asked whether this was really a case of functional aphonia. The larynx did not present the clinical appearances usual in such cases, and the voice had not been restored. Care should be taken as to how these cases were described. A wrong description might do the patient much harm. In the present case the loss of voice appeared to be due entirely to the state of the general health. Pains should be taken to exclude pulmonary tuberculosis. If that disease were present, no effort should be made by the patient to produce the voice. Loss of voice—at times mistaken for functional aphonia—was one of the earliest signs of the incidence of phthisis.

Mr H. J. BANKS-DAVIS (President) said that sometimes "functional aphonia" was one of the earliest signs of tuberculosis of the larynx, and that this was an accepted fact.

Mr H. M. WHARRY said he had tried the method in five cases, and in three, in which the voice was very weak, there was marked temporary improvement, but only as long as the pressure was kept up. In two cases in which there was no phonation he found no improvement from the pressure.

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Dr H. SMURTHWAITE agreed that one should make sure there were no signs of tuberculosis before calling a case functional aphonia. In functional aphonia much depended on the observer's personality and power of moral suasion. There were two forms of functional aphonia—one spastic, in which the false cords came together, the other in which they did not. The noise machine would have no effect in the spastic cases.

Sir JAMES DUNDAS-GRANT (in reply) said that apart from the question of tuberculosis in this case, he brought it forward solely to show the application of Negus' hand-pressure and the noise machine as adjuvants in the treatment of the functional aphonia which had existed for a number of months.

Fibro-lipoma of Larynx—JOHN F. O'MALLEY, F.R.C.S.—Male, aged 60. History of "asthma" for many years. "Catarrh" for five years; unable to sleep lying down. "Rasping" and "drawing" noise in the throat in the morning. Has a feeling of wanting to swallow.

21st July 1919: Growth removed by a cautery snare from the front aspect of the left ary-epiglottidean fold, at its junction with the arytenoid. The tumour was sufficiently free to hang down between the vocal cords and measured 1 in. in length, and ½ in. thick. It recurred, and was removed on 13th February 1923.

The stump has been freely punctured with the cautery on two occasions since, and when last seen on 23rd July 1923, it was about the size of a pea.

Dr IRWIN MOORE said these cases were very rare. Mr O'Malley, in discussion on a similar growth exhibited by Mr A. J. M. Wright,* in November 1922, remarked that he had looked up the literature, and could find only fifteen cases recorded.

Mr J. F. O'MALLEY (in reply) said he dealt with this case over two years ago, and at that time the literature contained records of only thirteen cases. In front of the attachment of the growth in the larynx there was now a slight prominence, as if it were spreading down on the front of the arytenoid, and he thought this was an extension of the lipomatosis. He put the point of the cautery into it as it was trying to grow again.

Fibro-sarcoma of Soft Palate, treated by Radium—F. BRAYSHAW GILHESPY.—Male, aged 47, in June 1922, had much difficulty in swallowing. When seen in the first week of July there was swelling of the soft palate on the right side extending over the middle line to the left side.

Operation: Incision over growth through soft palate. It appeared to be encapsulated and could be shelled down to its base. On attempting to remove it through the base the growth was found to be adherent to the deep structures of the neck, and a great amount of

* *Journal of Laryngology*, p. 91, 1923.

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bleeding was encountered. The external carotid was tied, but the growth could not be removed owing to its firm attachment and to excessive hæmorrhage.

Insertion of 110 mgm. radium emanation on 28th August 1923. (The first insertion was made after the operation.)

The growth has diminished in size, but there is a good deal of superficial inflammation since the second insertion of radium. Wassermann negative. Growth: Fibro-sarcoma, with large blood spaces.

Mr E. M. WOODMAN (speaking for Mr Gilhespy) said it would be helpful to hear what was the best method of dealing with such cases. Mr Gilhespy started to dissect the growth, and it shelled out satisfactorily from the top, but it was adherent at the bottom, where it was in contact with the carotid sheath, and there was severe bleeding. The exhibitor tied the external carotid, and hoped to remove it from the outside. He afterwards put in 110 mgm. of radium.

Sir WILLIAM MILLIGAN suggested that this case should be treated with a barrage of radium tubes, as the growth was fairly extensive ; twelve tubes of 20 to 30 mgm. each, should be left in for from twenty-four to thirty-six hours, the patient being afterwards subjected to deep therapy treatment.

Mr G. W. DAWSON said that the glands on the right side of the neck were extensively involved. He had shown before the Section a case of sarcoma of the tonsil five years ago; and when operating on it, he removed all the glands, although at the time they did not seem to be involved. On section, however, they were found to be sarcomatous. The patient was still alive; for a year after the operation he was treated with repeated doses of X-rays.

Dr WILLIAM HILL said he agreed that this was a case for the multiple application of radium, by the Manchester technique. Fibro-sarcoma did not need so much screening from other kinds of rays, such as was necessary in the case of certain other growths. This desperate condition justified desperate measures.

[*Erratum.*—Under Section of Otology, p. 665, line 18, December 1923, the words, "3 or 4 cm." *should read* "3 or 4 mm." in Mr Sydney Scott's remarks.]

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