Royal Society of Medicine

ROYAL SOCIETY OF MEDICINE—SECTION OF LARYNGOLOGY

December 7th, 1934

President—W. M. MOLLISON, M.Chir.

REPORTS OF CASES PREVIOUSLY SHOWN

(I) Fixation of Cords in a Case of Exophthalmic Goitre.—T. B. LAYTON.

Kate M., now aged 58, was shown at the meeting of the Section, held on *May 6th*, 1921, as a case of bilateral abductor paralysis in exophthalmic goitre (*Proc. Roy. Soc. Med.*, 1921, xiv., Section of Laryngology, 55). The late Dr. William Hill expressed the opinion (unpublished) that the condition was one of fixation of the crico-thyroid joints rather than a paralysis. Time proved him to be correct, and the fixation became more marked until tracheotomy became necessary. The patient wears a tube with a pea-valve.

This case is shown in order to raise a discussion on the physical signs of fixation of the joints as distinct from paralysis of the cords.

DISCUSSION.

HERBERT TILLEY recalled the case of a man upon whom he had performed an emergency tracheotomy about thirty-seven years ago, for bilateral adduction of the vocal cords. Beyond some swelling of the mucous membrane covering the arytenoid cartilages, no other laryngeal lesion was to be seen, nor was it possible to discover any central or peripheral lesions involving the origin or distribution of the recurrent laryngeal nerves. The patient has been kept under periodical observation for some thirty years, during which time he remained at work but has been unable to give up the tube, which did not prevent him from speaking with a fairly good though husky voice. During that period his general health has been excellent. The case might therefore be regarded as one of mechanical immobilization of the vocal cords, probably due to inflammation of the crico-arytenoid articulations.

A few years later, a medical man was seen for huskiness and pain on speaking or swallowing, with slight dyspnœa and stridor on exertion. His temperature was 101·4° F. and walking caused pain in the knee-joints and ankles. The left arytenoid region was much swollen, and the vocal cord motionless in the mid-line. He returned home, and passed through a sharp attack of rheumatic fever; two months later all the laryngeal structures were normal and his natural speaking voice had returned.

These experiences led in 1918 to communication with twenty-three cases of vocal cord immobility seen during the preceding ten years.[1] No reply was received from ten patients, they had probably died from some grave primary lesion which involved the corresponding recurrent nerve. Of the remaining thirteen, six had completely recovered the

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use of the previously immobile cord, three had died, and four remained in *statu quo ante*.

The deduction which might be drawn from these observations was that fixation of a vocal cord in the position of adduction did not neces sarily imply a grave prognosis although it would always be one's duty to exclude those factors which gave to an immobile cord its peculiar and often serious clinical significance.[2]

REFERENCES

[1] "Some observations on the clinical significance of paralysis of the left vocal cord," *Journ. Laryngol. and Otol.*, 1918, xxxiii., 161.

[2] "Mechanical immobilization of the vocal cords," *Brit. Med. Journ.*, 1927 (ii.), 681.

HAROLD BARWELL asked the reason of the remark that time had shown the diagnosis of fixation of the cord to be correct. It still looked like an abductor paralysis. There was no sign of scarring or old infiltration, so far as he could see, in the neighbourhood of the joints, and there was a little movement of the arytenoids on attempted phonation. He thought that in many of these old-standing paralyses the cords gradually became fixed from contraction of the fibres of the capsule of the joint, and of the muscles, but that paralysis was the primary cause of the condition.

P. WATSON-WILLIAMS remarked that in this patient, on phonation the right arytenoid adducted and rode over the left arytenoid which, being fixed, was not displaced; (an example of the difference between fixation and paralysis) since, with a left cord merely paralysed but the arytenoid not fixed, the arytenoid would be pushed aside by the more active opponent on the other side. That was a point in the diagnosis of these cases. Further, in this case the cord on the left side was broader than that on the right side and was at a different level.

T. B. LAYTON (in reply) said that the great point in the differential diagnosis of unilateral paralysis from fixation of the crico-arytenoid joint was that when the normal cord came back and hit the arytenoid: in paralysis the cord moved the arytenoid, but in fixation it slid in front or above. In the present case the left cord and arytenoid were totally fixed, but there was some movement on the right side. As that arytenoid came back and hit the other one, it slipped in front.

The question was, if one was sure there was a bilateral abductor paralysis due to definite paralysis of the nerves, was it not always a very serious lesion? Did any of those patients live as long as this patient had? In the cases which Mr. Tilley described as living for many years he suspected that it was a disease of the joint, as distinct from primary paralysis.

(II) **Basal-celled Carcinoma of the palate.**—H. BELL TAWSE.

Mrs. A., aged 42. Shown at meeting of the Section held on *March 14th*, 1927 (*Proceedings*, 1927, xx., 42).

Report of microscopic section, *April 8th*, 1927 (*ibid.*, 63).

Report of Research Committee (*ibid.*, 115).

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Shown at meeting of Section, *May 3rd*, 1929 (*id.*, 1927, xxii., 41).

June 6th, 1927: 25 mg. radium inserted into growth in palate for twenty-four hours.

March 3rd, 1934: Seven ½ mg. radium needles inserted in palate for seven days. Patient has nasal polypi which can also be seen hanging from the sphenoidal ostia.

DISCUSSION.

The PRESIDENT said he thought there might be a slight recurrence on the left side.

H. BELL TAWSE (in reply) agreed that there was now a slight recurrence on the left side, at the junction of the hard and soft palate. On previous occasions when there were recurrences, their progress was very slow. Radium needles were employed, and they were passed into the substance of the palate and anchored with silk sutures.

CASES

Impaired Mobility and Chronic Inflammation of the Left Vocal Cord and Ventricular Band.—H. BELL TAWSE.

Rev. W. D., aged 49. Two years ago almost complete loss of voice followed a bad cold, and he had to give up work for four months. Complete restoration of voice.

Last *March* he had a similar attack, and although he returned to work after a few weeks' rest, his voice was never normal. Hoarseness became more marked last *September*, and he was unable to preach.

September 11th, 1934: Very hoarse. Some tenderness over left ala of thyroid cartilage. No enlarged cervical lymphatic glands palpable. Marked limitation of movement of left vocal cord, which is obscured by the swollen, congested, ventricular band. Left arytenoid moves sluggishly. Small area of erosion at the junction of vocal cord and arytenoid.

The right vocal cord appeared normal. Some inter-arytenoid thickening. Chest clear. No sputum. Wassermann reaction negative. No improvement from one month's administration of potassium iodide. Suggestions as to diagnosis and treatment welcomed.

Two Cases of Pre-cancerous Epitheliomatosis (Bowen's Disease) of Palate and Fauces.—WALTER HOWARTH.

(I) F. T., male, aged 56, has been under my care for fifteen years. During that time the condition has markedly improved after light diathermic cauterization, but it usually recurs—often, however, in a different place. At one time the tongue was extensively affected, but it is now clear. The lesion on the lip is a recent manifestation.

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(II) A. G., male, aged 60, has been under observation for six months, but the condition has been present for more than three years. Only recently has it become painful. No treatment has been given as yet.

In both these cases there is a marked similarity between the multiple, papulo-squamous, hyperkeratotic, tumour-like lesions, and this clinical appearance is associated with a very characteristic histological picture. Microscopical examination of portions removed suggests that the condition is one which closely resembles the precancerous dermatosis of Bowen.

DISCUSSION.

F. HOLT DIGGLE said it must be difficult to decide when such a condition passed from the precancerous to the cancerous condition. Case II was already carcinomatous; he thought the glands in the neck were involved, and the histology seemed typical of squamous-celled carcinoma.

D. R. PATERSON said that he had seen two such cases, and they much impressed him. One patient was a man who went on for five years, and finally the hard palate perforated into the nasal cavity. The other, a woman, ultimately developed infiltration of the pyriform sinus.

In both cases the disease began on the inside of the cheek, fauces and soft palate, and was confined there for a long time. Various applications improved it, and when it assumed a warty appearance the removal of small pieces from time to time helped. Its activity used to change from one side to the other, until finally it settled and extended, notwithstanding repeated removals. Specimens were examined from time to time by the pathologist, but only in the later stages were the cases regarded as malignant.

H. BELL TAWSE asked whether the exhibitor would try radium needles in the lesion of the lower lip, in order to see whether the effect was more rapid and more lasting than that of diathermy.

LESLIE POWELL said that he had seen a similar case on the previous day. The patient had come to him originally nine years ago, with a large ulcer of the palate on the left side, involving the antrum. He thought it was malignant, and treated it with diathermy, but the pathologist said it was inflammatory. Two years afterwards she came again. This time he was sure it was malignant, and he accordingly treated her with radium in the antrum, and applied diathermy to the palate. It was reported to be epithelioma. She had been well until a year ago, but now she had a nodule in the palate, and several subcutaneous nodules in the cheek.

WALTER HOWARTH (in reply) said the first case he showed had been under his care many years, and had been treated by diathermic cauterization over a period of years. Not until this year did he see the second case. Then in a few weeks he saw a private patient with the same lesion. When the section from the private patient was examined by

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Dr. Philip Panton he drew attention to the curious histological appearance; the speaker took sections from the other cases, and the histological picture was the same in each. It was identical with the precancerous dermatosis described by a Boston dermatologist in 1912. He had not found any reference to this condition occurring in the mouth, but in several cases the lesion was described as being seen on the vulva and the vagina.

Dr. Paterson's cases must, according to what he said, be identical. It seemed that these cases could persist for years—as long as twenty years—without showing any malignant change. He agreed with Mr. Diggle that the lesion was probably, in its deeper parts, malignant, as there was a hard gland on the right side. He intended to adopt Mr. Tawse's suggestion to put radium into the lip in the first case, as diathermy might cause a scar, and radium would give a better result.

Lingual Thyroid.—HAROLD KISCH.

Female, aged 26, was seen in *June*, 1934, complaining of a sensation of thickness in the throat, with difficulty in speech and swallowing. The symptoms had been coming on gradually for two years. Previously there had been no symptoms, and apart from her physical under-development, she had had a normal childhood. There was a smooth, hemispherical, elastic swelling, the size of a pigeon's egg, at the root of the tongue. The trachea was very easily palpable in the neck, and no thyroid gland could be detected. Intelligence was good but there were signs of hypothyroidism. It was considered advisable to avoid operation, and to try to obtain reduction in size by X-rays. The treatment was carried out by Dr. Gwenda Hilton, under the direction of Dr. Salmond, at University College Hospital.

The following are details: Portals of entry—right and left lateral (6 by 8 cm.). Daily dose 200 r (190 kv. 7 ma., 1·5 mm. copper filter) to one field. Total dosage: 1st course 2,000 r to each field; 2nd course 1,800 r to each field.

The tumour has diminished, and the symptoms have been relieved.

DISCUSSION.

MUSGRAVE WOODMAN remarked that he had not seen this patient, but was interested in the treatment which was adopted. He had seen several cases of thyroid rest in the mouth or in the region of the hyoid bone, and these he had always treated surgically. He wondered why Mr. Kisch adopted ray therapy here. Presumably it was because of hypothyroidism and the absence of a palpable thyroid in the neck. Was the object of applying deep X-rays to cause fibrosis? He also asked whether Mr. Kisch had considered the possibility of excision, and, if he considered the patient was deficient in thyroid, whether grafting a piece of thyroid in the neck, in a more comfortable place for carrying it, would not be the better practice.

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Societies' Proceedings

HERBERT TILLEY said that last February he had seen a male Indian student, aged 35, with a lingual thyroid which caused slight difficulty in breathing at night and occasional spitting of blood. The speaker had discussed the prognostic surgical aspects of " lingual goitre " with Professor William Wright (London Hospital) and had received written communications on the same subject both from him and Dr. Alex. Low (Professor of Anatomy, University of Aberdeen).

> Professor Wright: I am sorry I cannot give you a definite answer to your question which I understand is " with thyroid tissue at the base of the tongue, can one conclude that there will be no thyroid tissue in the usual place in the neck ? " There is no reason why, in view of the way the thyroid develops, there should not be thyroid tissue in both places and also in intermediate positions—for as you know the thyroid develops as a median structure dividing more or less into two lateral parts as it meets the main vessels of the neck, and is drawn back by them in the backward movement of the heart. The parts are then divided and subdivided into lobules by mesenchymatous tissue. All this happens in the 5 mm. stage when cells are relatively undifferentiated, and as you can imagine, anything may happen.
>
> I realize that this doesn't answer your question but it justifies a *caveat* against concluding that in any particular case the lingual thyroid is all the thyroid which is present.

Professor Wright then sent my question to Professor Low who was about to publish a paper entitled " Abnormal Position of the Thyroid Gland " and he kindly forwarded to me a photograph of one of his specimens which showed two nodules of thyroid tissue behind the posterior pharyngeal wall—with the accompanying note :—

> The two aberrant thyroids seemed rather compressed against the lateral wall of the pharynx, but histologically the follicles appeared in every way normal and there was a small amount of undifferentiated thyroid tissue which one would assume might proliferate and give rise to thyroid tissue. Their vascular supply was provided by branches of the lingual arteries.

Professor Low's findings might prove of practical value if it could be shown that post-pharyngeal thyroid gland tissue was frequently present when the lateral cervical lobes were absent and a lingual thyroid called for some form of surgical treatment. In such circumstances, some degree of compensatory hypertrophy might be expected in the nodules behind the pharyngeal wall and, at the least, minimize the amount of post-operative thyroid medication.

H. KISCH replied that he chose X-ray therapy because when he first saw the patient she was so frail that he thought she would not survive a surgical operation, but something had to be done as she could scarcely swallow, and her voice was much affected. Dr. Salmond agreed to try the effect of the rays, and the result was that she could swallow comfortably and her voice was normal. Operation would probably have been followed by myxœdema.

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Skiagrams and Lantern Slides of Partial Thoracic Stomach.—H. BELL TAWSE.

D. R., a well-developed girl of 14, had recurring attacks of vomiting of sudden onset and abrupt termination, since the age of six years. It was regarded as cyclic vomiting. The intervals and severity varied greatly. When first seen in *January*, 1931, she had lost 1½ stone in weight in a few weeks.

Radiological report: No evidence of abnormality in chest or mediastinum. There is very marked delay in swallowing at about two inches above the cardia, with dilatation of the œsophagus above this. Appearance suggests simple fibrous stricture or spasm. It is not, however, usual to see spasm in the œsophagus at this level. Œsophagoscopy showed a tight stricture commencing about twelve inches from the teeth. This was with difficulty dilated up to No. 20 (Jackson). Two days later she could swallow with ease anything solid.

No serious recurrence till *May 10th*, 1933, when dilatation again apparently cured her vomiting. *Radiological report:* Hurst's tube obstructed about three inches above cardia. No evidence of malignancy. Condition appears to be due to fibrous stricture. Situation unusual for cardiospasm.

Another recurrence *November*, 1933. *Radiological report:* With the patient in the Trendelenburg position the barium ran back from the stomach and filled the œsophagus. Stricture seen about three inches above the cardia. Below this there was a dilated, intrathoracic portion continuous with the stomach. There is constriction at the level of the diaphragm, but no evidence of sphincter here. This intrathoracic part of the canal appeared to fill more easily on expiration, suggesting that the constriction is due purely to the muscular action of the diaphragm. Radiological appearances suggest congenital short œsophagus with partially thoracic stomach.

DISCUSSION.

MUSGRAVE WOODMAN asked whether any information could be given concerning the mucous membrane beyond the stricture. It would be informative if a section could be made to ascertain whether it was columnar-celled. He asked why there should be violent spasm.

H. BELL TAWSE said he was unable to answer Mr. Woodman's question; he could not get a view of the mucous membrane beyond the stricture. Immediately the dilator was removed the passage closed up again, and he was afraid that serious damage might occur if he forced a tube through the stricture. Now that the radiological examination had shown that the stricture was most probably the cardiac sphincter in spasm, he would certainly pass a tube through it, and if there was any doubt about the lining being gastric mucous membrane, he would remove a piece for examination.

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Although partial thoracic stomach was a very uncommon condition, he thought that more cases might be forthcoming if the Trendelenburg position was employed in radiography of patients suffering from persistent regurgitation of food.

Chondroma of the Posterior Edge of Vomer.

—JOHN F. SIMPSON.

Male, aged 33, complained of slight nasal obstruction, first starting about twelve months ago. This was associated with a feeling of discomfort in the back of the nose. At that time, there was an unsuccessful attempt at removal of what was thought to be a polypus in the post-nasal space.

Posterior rhinoscopy shows an expansion of the posterior edge of the vomer by what appears to be a chondroma, which is almost filling the right posterior choana and, to a lesser degree, the left. X-ray examination shows an indefinite shadow in the position of the tumour.

No operation is proposed until the tumour has enlarged sufficiently to give more definite symptoms.

Nasal Infection with Postural Proptosis.

—A. LOWNDES YATES.

Female, aged 49, had suffered for four months from painless proptosis of the left eye, with slight upward displacement. The proptosis was increased by bending forward, and diminished when the head was bent back. For an indefinite period she had noticed slight left-sided nasal catarrh. The visible signs within the nose and nasopharynx suggested an infection of the antrum, as did the illumination.

The proptosis disappeared after the left frontal sinus had been washed out by soft catheter and the left antrum by proof puncture, the frontal sinus yielding half a drachm of muco-pus and the antrum about 2½ drachms of more purulent material.

When the left antrum was injected with lipiodol, the skiagram showed a filling defect but no evidence of any fistula into the orbit.

E. BROUGHTON BARNES said that when the patient bent her head to her knees, marked proptosis occurred in twenty seconds, with swelling of the eyelids, which disappeared in about half a minute on sitting up again. He thought it possible that she might have a cavernous nævus of the orbit, and he would be cautious about doing anything to the antrum.

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