paralysis forms an early symptom of œsophageal growth. In three cases the evidence of laryngeal palsy was found during life, in one case it was evident at the autopsy; and in the remaining two the involvement of the recurrent laryngeal nerves was "probable."

Five of the cases were in men between the ages of fifty-one and fifty-five years, and one only in a woman aged thirty-three years.

The full notes of these six cases are well worthy of study, and an excellent summary of them is given in a table.

StClair Thomson.

THYROID AND TRACHEA.

Gaudier and Chevalier.—*Two Cases of Thyroid Tumour at the Base of the Tongue.* "L'Écho Méd. du Nord," August 24, 1902.

The first case was a woman, aged twenty-one, who complained of a slight difficulty in swallowing and in speaking. Her voice was nasal and more or less rough. She attributed all her troubles to a tumour at the back of the tongue. Two years earlier the tumour had been operated on in Paris with punch-forceps and galvano-cautery; the symptoms were relieved for about a year and a half, but then returned. On examination with a laryngeal mirror a round tumour, about the size of a walnut, was found behind the papillæ circumvallatæ. It was in the middle line, and pushed the epiglottis back a little. The mucous membrane covering it was apparently normal, was not fixed down to the tumour, and contained a fine superficial network of veins. The tumour was fixed in its deeper parts to the muscles of the tongue, did not fluctuate, but was almost soft on palpation. Otherwise the mouth was normal; tonsils not enlarged; no enlarged glands. From the neck no very definite information as to the tumour could be gained; the mass could be indistinctly made out in the suprahyoid region. General health was good; no goitre; blood and urine normal.

The diagnosis of the nature of the tumour was far from easy. It was evidently not a malignant growth. It was not fluctuant, and in appearance, etc., differed from a cyst. It was not in the usual position of a lipoma of the tongue. Fibroma of the tongue, whether pure or mixed with fat, cartilage, etc., is a very rare tumour, and has only been recorded in males. Hypertrophy of the lingual tonsil, angioma, and gumma could all be definitely excluded. The diagnosis made was "lipoma," or "lipo-sarcoma."

Operation.—Chloroform was administered, the patient being in Rose's position, the mouth widely opened by a Doyen's gag, and the tongue drawn well forward. The whole operation was carried out through the mouth. The first step was to pass a strong silk thread round beneath the tumour, in the muscular tissue of the tongue, which could be used to draw forward the base of the tongue, and also to stop hæmorrhage as soon as the tumour was removed. Next an incision was made along the top of the tumour in its long axis. No definite line of demarcation between tumour and tongue tissue could be found, therefore a free oval incision was made in what appeared to be healthy tissue all round the tumour, and the tumour removed. The silk thread was at once tied, and so the wound closed and hæmorrhage stopped. Two or three superficial stitches completely closed the wound. Recovery uneventful.

The tumour consisted of more or less normal thyroid tissue containing vesicles lined by a single layer of cubical epithelium, and full of colloid, the whole mass surrounded by a connective-tissue capsule of varying thickness.

The second case was a girl twenty years of age. When seventeen years old she noticed a change in the quality of her voice, and about two and a half years later she began to be troubled by a constant desire to swallow, and by some difficulty in breathing, especially at night. On examination a tumour was found at the base of the tongue. It was about the size of a large chestnut, was in the middle line, and depressed and partly hid the epiglottis. The tumour was covered with normal lingual mucous membrane, presenting on the surface a rich network of veins. There was no hypertrophy of glands, nor of the lingual tonsil. On palpation the tumour was found to be immobile, of elastic consistency, but not at all fluctuant. The mass could also be felt from the neck, in the suprahyoid region. General health was excellent, no enlarged glands, no dysphagia. The tumour had increased in volume during about a year, and seemed to grow most rapidly during menstrual periods.

As the mouth was very narrow, the tongue short and fleshy, and the tumour placed very far back, it was determined to operate by the transhyoid route. The patient was chloroformed in Rose's position. A long incision in the median line extended from the symphysis menti to below the hyoid. The hyoid bone was exposed, and cut in the median line with strong scissors. The two halves of the hyoid were then carefully separated, and the mylohyoid and genio-glossus muscles cut through in the middle line. An assistant passed his fingers on to the back of the tongue through the mouth, and pressed the tumour down into the wound. The tumour was then seized with forceps, and was easily separated from surrounding tissues except near the lingual mucous membrane, where it was adherent by a large pedicle. This was divided so as to leave part of the pedicle *in situ*, for two reasons: first, to avoid making a communication between the wound and the mouth; secondly, because, as no thyroid gland could be found in the neck, it seemed safer to leave part of this lingual thyroid intact. This tumour also consisted of practically normal thyroid tissue.

The authors have found twenty-two cases of thyroid tumours in the tongue recorded. There are two kinds of lingual thyroid tumour —viz., encapsuled tumours and non-encapsuled tumours. The former consist of the whole thyroid gland which has not undergone its normal descent into the neck; the latter represent simply a piece of thyroid gland left in the tongue and undergoing abnormal development.

Nineteen of the twenty-two cases recorded occurred in women; they generally appear at, or soon after puberty, and grow very slowly. The symptoms are simply the symptoms of any growth at the base of the tongue, and depend partly on the position of the tumour and partly on its size.

The authors discuss at considerable length the differential diagnosis between these and other benign lingual tumours, and the various methods of operating on them. *Arthur J. Hutchison.*

Raoul Leroy and Lucien Veslin.—*The Hygienic Treatment of Exophthalmic Goitre.* "La Presse Méd.," September 6, 1902.

In the treatment of exophthalmic goitre various drugs have from time to time been recommended by various authors, but none has proved satisfactory. For a certain number of years most cures have been obtained by the use of electric currents, chiefly faradic, combined with strict attention to hygiene. The authors attribute greater importance to the hygienic treatment than to the faradization, and report a case cured by the former alone.

Mme. C—— noticed that in 1884, after the birth of her first child, her neck began to grow larger. The neck continued to increase slowly for fourteen years without causing any inconvenience until in 1898 the left lobe of the thyroid grew rapidly larger. Then headaches, palpitation, tachycardia, trembling, slight exophthalmos, flushings, sweats, etc., appeared.

The patient was ordered to avoid excitement, to live as quietly as possible, and keep regular hours; take cold baths, avoid tea, coffee, and alcohol; to take only very simple diet, chiefly milk. The patient commenced this treatment in May, 1899; in August the sense of oppression, the tinnitus, and the pains in neck and left arm disappeared, and the thyroid began to grow softer. In September the trembling ceased, sleep returned, and the heart began to beat more slowly. By December the prominence of the eyes had gone, the goitre was smaller, mental condition much improved. In February practically all the symptoms had disappeared, and the thyroid had returned to the condition it had been in prior to the onset of the exophthalmic symptoms. There was no return of any symptoms of Graves' disease when patient was last seen in October, 1900. *Arthur J. Hutchison.*

EAR.

Blake, Clarence J. (Boston).—*Tension Anomalies of the Sound-transmitting Apparatus of the Middle Ear.* "Arch. of Otol.," vol. xxxi., No. 2.

To these the writer attributes the marked discrepancies between various observers as to the upper limits of human hearing power. He has observed that whereas with the intact drum the limit is at from 45,000 to 50,000 double vibrations per second, attachment of the membrane to the incus raises it to 65,000, and with direct transmission to the stapes it rises to 90,000. Increased tension of the membrane, as from closure of the Eustachian tube, causes an increase in the transmission of tones of the highest pitch, which sinks again to the normal on restoration of the patency of the tube. The posterior part of the membrane responds in vibration, especially to tones of lower pitch; hence, it is important that the proper degree of tension of this portion should be maintained. When it is diminished, paper discs or contractile collodion may be applied. Over-use of the various forms of pneumatic massage may induce an over-stimulation of the tensor tympani, with resulting decrease in the mobility of the conducting apparatus and lowering of hearing for qualitative overtones. The writer attaches considerable value in diagnosis to the performance of exploratory tympanotomy. *Dundas Grant.*