CASE OF NASAL POLYPI ASSOCIATED WITH TACHYCARDIA,

BELIEVED AFTER REMOVAL OF THE OBSTRUCTION IN THE NOSE.¹

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F. G. R., aged about 35 years, married, and temperate, a clerk in a Government office, consulted me by Dr. Sansom's advice on December 23rd, 1893. He had noticed some obstruction of the nose for about four months, and latterly (for about twelve weeks) the difficulty of breathing through the nose had been much aggravated, especially at night. He had also lately suffered from an uneasy consciousness of rapidity of the heart's beat, not, however, amounting to palpitation nor to stoppage, but sufficiently unpleasant to alarm him and make him anxious.

The pulse-rate, as observed by Dr. Sansom, was 120 per minute, the tachycardia being persistent. There was an area of præcordial pain below the nipple and over the site of the left ventricle; no murmurs were heard. There was marked anæmia. He looked ill, being pale and having an anxious expression.

Polypi were easily detected in both nasal fossæ, the lower channels of which were not completely blocked, so that nasal breathing was still possible, though with some difficulty.

On December 23rd, 1893, cocaine was applied, and polypi were removed from the right nostril.

On December 28th and 31st further operations were performed on both sides.

On January 11th, 1894, the breath channels were almost clear, but some polypi were still visible. He expressed himself as much improved in general health since the operation.

Between January 18th and December 13th, 1894, further operations were performed on eleven occasions.

On January 4th, 1894, the patient's nose was perfectly free from obstruction, and he had no cardiac trouble, but slight bronchial catarrh.

On January 18th he was much better; but there was still a small polypoid growth, which was cauterised by pointed electric cautery.

On March 19th he came to report himself. The nasal breathing was quite free; he had passed through the severe winter with comfort, and had had no cardiac trouble nor bronchial catarrh since the last note. He was looking well, and seemed bright and cheerful.

Remarks.—The tachycardia was probably of reflex origin. This symptom is, in my experience of intranasal disease, not common; but Dr. Sansom has met with similar cases, and at once recognised the probable connection of the cardiac and nasal trouble in this case. It is important, therefore, that in the absence of cardiac murmurs the search for intranasal disease should never be neglected whenever there is tachycardia with anæmia and præcordial pain. The precise mechanism of the reflex irritation is not quite obvious.

A report by the Clinical Research Association, November 20th, 1894, stated that microscopic examination of the specimens removed demonstrated that the gritty, bone-like substance in one of them was cartilage embedded in dense fibrous tissue, and bounded on the one hand by a very vascular layer, and on the other supporting small polypoid growths. Histologically these growths were composed of loose connective tissue covered with nasal mucous membrane. They presented also a few glandular tubules, and some of these were dilated into small cysts.

¹ Read in the Section of Surgery at the Annual Meeting of the British Medical Association, held in London, July-August, 1895.

THE DARJEELING WATER SUPPLY.—A contract for filtering the water supply at this station by the Pasteur system of filtration has been, the *Pioneer* says, concluded with a Calcutta firm.

SAMUEL NOTHARD, of Canteen Street, Todmorden, was bitten by a rabid dog, on September 1st, and sent on September 6th to the Pasteur Institute, Paris. He went through a full course of treatment, but on Monday, October 14th, developed marked symptoms of rabies, and died on October 17th.

VOCAL DEFECTS AMONGST SCHOOL BOARD TEACHERS, WITH SPECIAL REFERENCE TO THE OCCURRENCE OF TEACHERS' NODES.¹

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HAVING had frequent opportunities during the last few years of studying the effects of prolonged use of the vocal organs amongst school board teachers, I desire to lay before you a few general observations bearing upon the etiology and mode of production of certain pathological conditions affecting the vocal cords at times to such an extent as to prevent the individual from following out his or her occupation. These observations have been mainly confined to the study of changes occurring in the laryngeal cavities of female school board teachers, partly because they have appeared to me to suffer in this respect more frequently than male school board teachers, and partly also because in certain schools female teachers are the more numerous body, and as a consequence come more frequently under observation. The pathological changes encountered appear to bear a direct relation to the length of time during which the individual has taught. For convenience of description the lesions found may be classified as follows:

1. Subacute and chronic laryngeal catarrh affecting mainly the true vocal cords.

2. Chronic catarrhal laryngitis with subsequent paresis of certain laryngeal muscles.

3. Chronic catarrhal laryngitis with a varicose condition of the smaller vessels of the true cords.

4. Chronic catarrhal laryngitis with secondary pachydermic changes, local or generalised.

These various stages may pass almost insensibly from the one to the other, so that when the stage of actual node formation is reached we must recollect that it is in reality the outcome of a gradually progressive series of pathological changes.

The catarrhal laryngitis from which so many teachers suffer appears to be from the commencement of a chronic catarrhal nature. Slow and insidious changes, due to a hyperæmic condition of the blood vessels of the true cords, are set up, ending in a gradual hyperplasia of the submucous connective tissues, and followed by paresis of certain laryngeal muscles. These changes may progress somewhat rapidly, and at an early stage minute nodes may appear. Thus M. G., aged 14½, commenced her duties as a pupil teacher at the age of 13 years 3 months. Her general health had never been very good, and at the time of admission to hospital she was found to be distinctly anæmic.

Upon examination, the laryngeal mucous membrane was found hyperæmic and hypersecretory. Slight paresis of the tensors was present, and upon the edge of the right cord a minute node was seen to be forming. Usually, but not always, the changes are symmetrical. In one case in particular the left vocal cord was found distinctly granular, almost in its entire length, but no departure from the normal was observed upon the right side. The actual position of the nodes seems to vary but little, and in my experience they have been situated upon the edge of the cords at the junction of the anterior with the middle third. Usually they are about the same size, although cases have been seen where one node was distinctly larger than the node upon the opposite cord.

Thus L. S., female, aged 20, had taught as a school board teacher for six years. For three years before applying at hospital her voice had given her trouble, being easily fatigued and at times very husky. She had taught classes of various sizes, but usually the number of pupils ranged from 40 to 100. The school at which she taught was situate in a noisy thoroughfare. The room where the classes met (there were three classes in the room) was large, and fairly well venti-

¹ Read in the Section of Laryngology at the Annual Meeting of the British Medical Association, held in London, July-August, 1895.