A CASE
OF
CHRONIC INFLAMMATION
OF THE
LARYNX,
IN WHICH
LARYNGOTOMY AND MERCURY

WERE SUCCESSFULLY EMPLOYED.

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COMMUNICATED BY DR. ROGET.

Read March 16, 1819.

THE profession is deeply indebted to several most respectable writers*, for the ability with which the diseases of the Larynx have lately been pressed upon its attention. Probably the present case, which presents an example of chronic inflammation of the larynx, in which an impending suffocation was averted by the operation of laryngotomy, and the original disease was subsequently removed by the mercurial action, may be deemed of sufficient importance to form an addition to the number of valuable cases of affections of the larynx,

* Baillie, Farre, Lawrence, Charles Bell, &c.

already contained in the volumes of the Medico-Chirurgical Transactions*.

Mrs. Ann Hatton, aged fifty-three, of Barrow on the Soar, about fifteen miles from Nottingham, became affected in the latter end of September, 1817, with hoarseness and a hard dry cough. These two affections continued to augment in severity, without any additional symptom, during two months, when about the 13th of November, a degree of difficulty in breathing, referred by the patient to a "tightness in the throat," was super-added to them, and she discovered that she was unable to "snuff up" through the nose in inspiration, in the ordinary way. During two subsequent months the hoarseness, cough, and dyspnœa continued and increased; and about the commencement of February, 1818, she began to experience, in addition, a degree of difficulty in swallowing. In the beginning of March she observed a swelling, rather diffused, but said to have been of the size of a pigeon's egg, over the upper part of the thyroid cartilage, with an increase of the dyspnœa and dysphagia. A liniment was employed for this tumor, by which it was reduced in size, and the difficulty in breathing and in swallowing was diminished. In a short time, however, these symptoms became again aggravated, and

* Vol. iii. art. 6. and 19; vol. iv. art. 16; vol. vi. art. 15; vol. ix. art. 4.

they continued to augment until the month of August.

During the course of this affection Mrs. Hatton constantly referred the seat of the difficulty of breathing to a tightness at the upper part of the larynx. She has always been affected with cough, accompanied by a peculiar, harsh, croupy sound in the throat, at first, hard and dry, but more recently attended with the expectoration of viscid mucus, once tinged with blood. The dyspnoea has been constant, and lately much aggravated, precluding sleep, or putting a period to sleep by inducing a sense of impending suffocation, and rendering a raised position in bed absolutely necessary. Lately too she has suffered from fits of increased dyspnoea, threatening suffocation, obliging her to run for relief to the open window, and causing great anxiety and urgent distress.

Mrs. H. applied to me on the 15th of August, 1818. She was then affected with a degree of hoarseness, which rendered the voice scarcely audible. There was a perpetual dyspnoea referred by the patient, by the noise in breathing, and by the sound of the cough, to the upper part of the larynx. She swallowed with great difficulty and effort. There was an obvious general tumefaction of the parts about the larynx, occupying the left rather more than the right side. She stated that she experienced great difficulty in walking up a

hill, or pair of stairs. She described the impossibility of snuffing up the nostrils, an effect, I suppose, of the partial closure of the larynx ; for to produce this snuffing it is necessary that a certain *quantity* of air should be drawn through the nostrils with a certain *velocity* ; and, in the present instance, the *quantity* of air admitted appears to have been too small. The patient experienced increased uneasiness on drawing the head backwards. A bougie was passed into the œsophagus, but met with no resistance.

On the 15th of August, I recommended five grains of the pil. hydrarg. to be taken every night and morning, half an ounce of the sulphat of magnesia, twice in the week, four leeches to be applied over the larynx every other day, and a lotion constantly, when the leech-bites were not bleeding.

On the 22d of August, I again saw Mrs. H. The symptoms were unabated. The mercurial had produced no effect on the gums. Mrs. H. was now induced to remain a short time in Nottingham. There was a degree of emaciation and debility ; the pulse was rather frequent and feeble ; the appetite impaired. The pil. hydrarg. was continued three times a day.

On the evening of the 24th, Mrs. H. was seized with an alarming fit of dyspnoea, to which I was

witness. There was the greatest anxiety of countenance and manner; and in the breathing, every auxiliary muscle of respiration was called into exertion, and there was every appearance of impending suffocation. The dyspnoea had abated somewhat in violence, and there had been similar fits of dyspnoea before, or I should have immediately recommended the operation of laryngotomy. The difficulty of breathing abated gradually, and I left my patient in her usual state of dyspnoea.

In consultation with Mr. Oldknow, a most skilful surgeon of this town, it was concluded that the operation of laryngotomy was necessary to avert the danger of suffocation, incurred during the fits of dyspnoea. The operation was therefore performed on the 25th instant, and I am obliged to Mr. Oldknow for the following account of it.

“ An incision was made through the integuments, beginning a little above the thyroid, and terminating a little below the cricoid cartilages. The external surfaces of these cartilages were then exposed, partly by incision and partly by the finger. An opening was then made into the larynx, a little below the most prominent part of the thyroid cartilage, and extended downwards to the upper margin of the cricoid cartilage. This incision not being sufficient for respiration, a crucial incision was next made through the membranous connection of the two cartilages; but still with an

unsatisfactory result, for the breathing was performed only in part, and with great difficulty, through the aperture thus made. A circular portion, about $\frac{1}{8}$ of an inch in diameter, was therefore removed from the lower and lateral part of the thyroid cartilage, when the respiration became perfectly free, and the patient experienced the greatest possible relief. The cut edges of the integuments were kept asunder by straps of sticking plaster, passed from them towards the nape of the neck.

Remarks. This operation was rendered more difficult than might have been expected, from the impossibility of the patient's reclining the head *backwards*, this position inducing greater dyspnoea. The larynx could not therefore be brought sufficiently forwards, and the depth of the incision was necessarily greater than was contemplated. The upper part of the thyroid gland, which appeared to reach higher than usual, was exposed. This gland was nearly in contact with the cricoid cartilage, so that an opening could not have been made through the upper ring of the trachea, without the danger of wounding the gland and causing hemorrhagy.

“ It may be said, that an opening made so high in the larynx, as in the present instance, is injudicious : first, on account of its affording less decided relief to the respiration, if there be extensive

disease, and secondly, on account of the danger of wounding the vocal chords. With regard to the first objection, the decisive relief afforded to respiration in the present instance at least, is a sufficient answer. With respect to the second, if care be taken to remove a part of the thyroid cartilage to the extent above specified, from the inferior and lateral part of this cartilage, no injury will be inflicted on the vocal chords, their anterior attachment being nearly opposite to the most prominent and central part of the cartilage.

“ On the other hand, the advantages of a permanent opening thus induced, are very considerable, especially when we consider the impossibility frequently experienced of employing a tube to insure the same effect. In the present case the introduction of a probe merely, induced the most distressing fits of convulsive coughing.”

This operation afforded immediate relief to the respiration, and Mrs. H. slept soundly through the ensuing night, for the first time for a long period. Deglutition continued difficult, and always induced coughing during the five or six subsequent days. The cough raised some viscid mucus, which was forced through the orifice made by the operation. The voice was quite lost.

On the day of the operation the pil. hydrarg. was omitted, and the ung. hydrarg. was prescribed

to be rubbed in, in the quantity of half a drachm morning and evening. The ol. ricini was ordered to open the bowels.

On the 28th, the mouth became sore. Mrs. H. soon afterwards experienced a mitigation of the difficulty in swallowing, and on applying the finger to the opening into the larynx, she found, in a short time, that the tightness in the respiration was also diminished, and that she could breathe with greater facility than before the operation, and, as she expresses it, more freely through the nose.

This amendment continued progressive, and on the 5th of September, the orifice into the larynx so far closed, after an attack of sickness and retching, induced by the ol. ricini, that the air only passed through it during respiration. On the 11th, the orifice closed finally; the respiration, however, was free, the swallowing easy, and there was a slight return of voice even. On the 13th, I again heard from Mrs. H., who had returned to Barrow; the amendment continued; the mouth was extremely sore. The ung. hydrarg. was ordered to be used more sparingly.

On the 22d, I paid Mrs. H. a visit. She was sitting up in bed. She breathed with perfect freedom, and had had no paroxysm of augmented dyspnoea since the time of the operation; she

swallowed without uneasiness or effort, and, as she said, as well as ever; the whisper had advanced to a hoarse voice; and she could snuff up the nose with the usual force. Speaking, however, still required much effort, from the remaining hoarseness; and in swallowing, the skin just above the cicatrix was drawn into wrinkles, being raised by its adhesion to the thyroid cartilage. The tumefaction about the larynx had disappeared. There was scarcely any cough, and but the scanty expectoration of a little mucus. The general appearance, strength and appetite were improved. She could lie down, and slept the night through. The mouth was better, but still affected by the mercury.

October the 27th. Soon after the date of the last report, Mrs. Hatton imprudently left her bedroom, and exposed herself to the draughts of air in a room with three doors. She appeared to take cold in consequence, and a degree of difficulty of deglutition, and a loss of the voice formerly regained, was the effect. She came once more to Nottingham; she was once more put upon a course of the ung. hydrarg.; and in proportion as this remedy induced ptyalism, the dysphagia disappeared entirely, and the voice became again improved. To-day, two months after the operation, she only suffers from the effect of the mercury on the mouth; the respiration and the swallowing are quite natural, and the general health

and appetite are good. She returns home, with the recommendation to continue the use of the ung. hydrarg. for a time, to put on flannel, and cautiously to avoid exposure to cold.

This state of amendment still continued on the 16th of December, and on the 8th of January, 1819, when Mr. H. called to give the most satisfactory account of Mrs. H.'s recovery and general health.

It may, I think, be fairly concluded that by means of laryngotomy and of mercury, this poor sufferer was saved from an inevitable death. This case affords, therefore, a striking instance of the efficacy of *Modern Medicine and Surgery* ; for it is but justice to state, that the means employed were adopted principally on the suggestions of living authors, and especially of those whose names have been already mentioned.