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MEMBRANOUS RHINITIS.[1]

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BY the term *Membranous Rhinitis* is meant an acute inflammation of the nasal passages, in which the exudation forms a membrane covering partly or entirely the inflamed surfaces. This is the most prominent characteristic, but it differs in many other respects as to its course, susceptibility to treatment, etc., from the acute inflammation ordinarily seen in these parts. According to my observation, it occurs in about two per cent. of all cases of acute rhinitis.

These cases were, in healthy subjects, free from any hereditary or acquired disease. There was absence of any history of syphilis, rheumatism, or scrofula. One patient had had scarlet fever during childhood, which had left its mark upon the upper air passages. In this case there was partial destruction of the membrana tympani in the right ear, and the entire upper air tract was sensitive to changes in temperature. The personal history of the other cases was negative.

These attacks of membranous rhinitis were not associated, in any case, with any of the infectious diseases. In fact, with a single exception already mentioned, there was nothing to suggest a theory to account for the peculiar nature of the nasal inflammation; none of the patients had had diphtheria, and there was nothing to indicate its presence, either during the attacks or afterwards. One of these cases occurred in a member of my household, and therefore presented an excellent opportunity for observation as to its course, and to the effect of remedies upon it.

The history of these cases is as follows:—The attack begins like an ordinary acute rhinitis, excepting that the symptoms seem to be intensified. There is dryness and fulness of the nostrils, accompanied by a most disagreeable sensation of "tickling." This is persistent, and prompts the

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continual blowing of the nose, which, however, is entirely ineffectual. After the first day, the dry stage is followed by the stage of dilatation. There is a free discharge, watery at first, afterwards becoming denser, but never muco-purulent. The systemic disturbances are not severe. We have headache at times, not in all cases nor continually in the same case. There is frequently some constipation, easily relieved however. There is hardly a perceptible change in the temperature. The appetite is good, sleep somewhat disturbed, but not to a degree requiring treatment. The symptoms are for the most part local, and they are annoying both from their intensity and their duration. Without examination of the nostrils there would be little to indicate that you had to deal with anything but an ordinary acute inflammation which was more persistent than usual. This examination, however, reveals an interesting condition. By the third day of the disease it will be observed that the discharges, instead of being easily removed, cling to the surfaces with great tenacity; they form a white coating over most of the inflamed area, that is, over the turbinated bodies and over the septum. This coating cannot be either washed away or wiped away with absorbent cotton; points may be torn off with small forceps, but the membrane soon reforms. When you have succeeded in removing some of the membrane in this way the denuded surfaces present bleeding points, and are very tender. In spite of treatment, as will be seen, this condition lasts during the course of the disease.

In some respects this membrane is similar to that formed in diphtheria. It is dead white and opaque; it is firmly attached to the parts beneath; it is only detached with violence, leaving a bleeding surface. Another interesting distinction between this and the ordinary inflammation is the refusal of the tissues to respond to the contractile power of cocaine. The engorgement of the parts persists even under strong solutions, and this, of course, adds to the distress of the patient. This cannot be due entirely to the fact that the membrane prevents contact of the cocaine with the tissues, because it was observed in the first few days of the disease before the membrane had formed. It seems to be one of the essential qualities of this form of nasal inflammation, and may be used as one of the diagnostic points.

The duration of the disease, notwithstanding the most energetic treatment, both constitutional and local, was about three weeks. This is very different from the course of the usual acute rhinitis. Most cases of the latter can be limited by the modern treatment to hardly more than as many days. We are accustomed to assure our patients that if they will follow our directions their colds need not last more than three or four days, and this statement is, as a rule, justified. It is, however, necessary to be more guarded in an assertion of this kind, as is indicated by the study of the disease under consideration.

The treatment consisted in both constitutional and local measures. The first began with a hot bath at night, and the exhibition of 1-100 gr. of sulphate of atropia. The atropia was continued for a few days in doses of 1-200 gr. every 8 hours. Its effects were apparent in the pharynx, but it did not control the nasal symptoms, and the salicylate of soda was substituted in doses of 5 gr. three times a day. This was used on the

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supposition of a rheumatic element in the case. It was, however, soon abandoned, as it seemed to cause a distressing headache, not present before, and not present after the drug was stopped. The bicarbonate of soda was then tried with negative results, and finally the bromide of potash in 20 gr. doses four times in the twenty-four hours. The latter seemed to have a good effect, the unpleasant sensations resulting from the long continued and persistent stenosis of the nasal passages were modified. It must not be supposed that no attempt was made to control the stenosis by local means. Cocaine was used from the first in the strength of from four to twenty per cent. It had the result of benumbing the parts and giving relief in that way, but no contractile effect could be observed. There seemed present an œdema of the tissues that prevented them responding to its influence. The combination of antipyrine and cocaine, as suggested by Dr. F. W. Hinkel,[1] of Buffalo, was then tried, but without result.

I then began systematically to tampon the nose with absorbent cotton, and this gave partial relief. Cocaine was first applied, and then the cotton was introduced, dry as a rule, though occasionally it was dipped in the cocaine solution before using. The dry cotton appeared to give the best result. It absorbed what moisture there was, and made pressure upon the œdematous tissues, and in this way relieved the stenosis temporarily. Often a series of cotton pellets was introduced one after another, each being left *in situ* for five minutes or more, and this plan seemed to work very well.

In one case menthol was used dissolved in oil in the strength of one per cent., and the cool feeling it produced was very agreeable to the patient; it was therefore used occasionally. As the disease gradually subsided, the cocaine recovered its contractile powers, and then, of course, restoration of the healthy state of the parts was hastened.

In one case a curious phenomenon was observed. The disease seemed to expend itself upon the left nostril in great part, the right nostril showing but slight disturbances. In the left nostril all the symptoms that have been described were present. The membrane was well formed, and covered the entire surface of the septum and of the turbinated bodies as far as could be observed. The stenosis was very persistent, and after continued tamponning would return in a short while. In the right nostril the membrane formed only in points here and there, the stenosis was easily relieved, and in every way the inflammation less severe.

In this case the disease recurred after several months, and in this second attack the left nostril seemed more affected than the right, though the contrast was not nearly so well marked as in the first attack.

I cannot say that the treatment controlled the course of the disease or shortened it in any way, though, of course, it added to the comfort of the patients. It is possible, however, as has been observed, that in the last days, as the disease was disappearing, it had something to do with hastening recovery.

[1] *New York Medical Journal, October 20th*, 1888.

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There is very little reference in literature to cases of this kind. Dr. William A. Hammond in an article on "Coca: its Preparations and their Therapeutical Qualities, with some Remarks on the so-called Cocaine Habit," in the Virginia Medical Monthly for November, 1887, reports an attack of rhinitis in himself, that presented many characteristics found in the cases described in this paper. He says the membrane in his case was not unlike that formed in diphtheria, but was very loosely attached to the tissues beneath. In this latter respect it differed from my cases, but in other ways they agree so well as to lead me to think it was the same disease. In his case, as in those upon which the paper is founded, there was no tendency in the disease to spread beyond the nasal passages. It was limited entirely to the nose; the pharynx even could not be said to show any evidences of disturbance.

In conclusion, one or two suggestions are offered for consideration. The drift of opinion to-day is towards a broader conception of the nature of disease. It is expressed in this instance by most observers holding that all inflammations of the air passages associated with the formation of a false membrane are related, and this relation is indicated by saying they are expressions of the diphtheritic poison. Ought not this opinion to be modified by saying that the great *majority* of these cases are so related? Is this rule quite so universal as is usually held? If we can have an inflammation of the nose characterized by the formation of a false membrane in which no trace of the diphtheritic poison can be discovered, cannot the same kind of an inflammation appear in the larynx or the pharynx? Can it not also occur in the bronchial tubes and produce there a croupous bronchitis?

In view of any criticism of the accuracy of observation concerning these cases of membranous rhinitis it is proper to state that I have always followed the opinions of Dr. Jacobi and Sir Morell Mackenzie in regard to the unity of the croupous and diphtheritic inflammations, and it was therefore with great interest that these cases were studied.

The questions involved in the consideration of the inflammations seen in the air passages cannot yet be said to be settled. And I trust the cases reported here will add something to the knowledge of the subject and stimulate further inquiry.

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CASES OF MALIGNANT DISEASE OF THE THYROID GLAND.

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CASE I. *Sarcoma of the Thyroid Gland.*—While conducting the clinic of Mr. Hovell during his absence, in April, 1888, the following interesting case of sarcoma of the thyroid gland came under my notice, and is perhaps worth recording, on account of such cases being rare.

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