ATROPHIC RHINITIS, TREATMENT WITH SCARLET RED.*

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In the October, 1913, issue of *THE LARYNGOSCOPE*, Dr. K. K. Wheelock, in an article entitled "A new and efficient treatment of atrophic rhinitis," cited the results he obtained in a number of cases which he treated with scarlet red. These results so far surpassed any which I had ever been able to obtain by the various methods of treatment and with the numerous applications which have from time to time been suggested, that I decided to try this dye on the atrophic cases which were visiting the dispensary.

We all recognize the fact that the more numerous the drugs recommended in the treatment of any given condition the less do we usually know about that condition. This has been particularly true of atrophic rhinitis, and I believe that most of the benefit which has been derived in the past has been due not so much to the particular drug or preparation used but rather to the thorough cleansing of the parts at regular and frequent intervals. I have failed to produce any marked change in the appearance of the mucous membrane itself and have always seen a return to the previous disgusting condition just as soon as treatment has been discontinued. This has been due, I believe, to the fact that so little has been definitely known as to the etiology of the condition, and as proof of our uncertainty of the etiological factors we have only to go over the various tables as given by the authorities on the subject.¹ Perez² claimed to have discovered a specific agent, and asserted that every case originated by infection from another patient or from the muzzle of a dog. DeSimoni,³ on the other hand, has "inoculated the normal mucous membrane with the Loewenberg-Abel bacillus, the diplococcus lanceolatus of Fraenkel, and also with crusts from cases of ozena, and in no instance did he succeed in reproducing the disease."

Congenital narrowness of the nasal fossae, undue patency of the nasal chambers, and arrest of development of the lower turbinals have been given as possible structural causes, but I believe they act only indirectly as factors in the production of atrophic rhinitis.

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Others claim it to be secondary to purulent rhinitis of childhood, ethmoidal osteitis, rarefying osteitis of the lower turbinals, accessory sinus disease, focal suppuration in the nose, accessory cavities, or post-nasal space, atmospheric desiccation and bacterial invasion.

Considering carefully the findings of the many observers, and considering also the clinical evidence presented by the cases which we see ourselves, the whole matter seems to narrow itself down to some condition which produces a muco-purulent discharge in the nasal chambers. If this be true, the following group of conditions would seem to be responsible, directly or indirectly, for the chronic rhinitis in question:—Congenital, developmental, or acquired deformities resulting in a widely open or extremely narrow nasal chamber, suppuration from the accessory sinuses, and growths in the naso-pharynx with suppuration.

There is no doubt in my mind that the muco-purulent rhinitis of childhood precedes the atrophy in a great majority of cases, and that this discharge is the result either of a large adenoid or of suppurative sinus disease, or both, seems all the more probable when we remember the following facts:—"Suppuration in the frontal and maxillary sinuses seldom gives rise to symptoms of ozena, but it is not at all uncommon for pus in the sphenoidal and posterior ethmoidal cells to do so. Now these cells are present at birth and are close to the post-nasal space, so frequently the seat of suppuration in early childhood."⁴

With these facts before us, it would appear to me that the atrophy is not due directly to the deformity or obstruction present, with the resulting limited or increased space in the nasal chamber, but rather to the fact that the mucous membrane is being constantly bathed with a muco-pus, this going on over a long period of time, attended naturally with a chronic inflammatory condition, with circulatory and tissue changes and finally the atrophy, loss of sense of smell, altered secretion, and consequent crust-formation.

So much for the etiology of the condition. Now as to the treatment of these cases. Once the condition has been recognized, it becomes our duty immediately to determine, if possible, the underlying cause and to remove it. A deviated septum should be straightened as soon as the chambers have been made reasonably clean; the muco-purulent discharge, if still present, should be traced to its source and that region treated. Should there prove to be a large adenoid in the naso-pharynx, it should immediately be removed. If, on the other hand, the discharge comes from one or

more of the sinuses, the condition should be properly and immediately treated, either by washing and applications, or by surgical means, as the case may demand.

Having either failed to find the original cause of the atrophy, or having found and removed it, we must now turn our attention to the atrophic condition itself, and it is here that we have, as a rule, been unable to effect a cure. The removal of the cause, where it has been found, and careful treatment afterward has in many cases benefited the patient, at times arresting the process, stopping to some extent, at least, the formation of crusts, and decreasing or even eradicating the ozena, yet the atrophy of the tissues themselves remained, and many of the minor, yet disagreeable symptoms, persisted.

It is a peculiar fact that in a large number of cases, the atrophic condition is called to our attention for the first time long after the original cause has disappeared, and in spite of the fact that the patient must have had catarrhal symptoms over a long period of time. However this may be, the large majority of cases of atrophic rhinitis which we see present simply an atrophy, ozena, crust-formation, and in many cases, especially those of long standing, a loss of the sense of smell, and it is this end-group of symptoms which has seemed almost hopeless, requiring treatment over an indefinite period of time, and which relapse to the former disgusting condition just so soon as treatment is discontinued.

I have followed Dr. Wheelock's suggestion and used scarlet red in all the atrophic cases coming to the dispensary; and I believe the results obtained are just as noteworthy as those in his cases. Whether these cases will relapse after the discontinuance of treatment or not remains to be seen, but there is no doubt the results obtained over the short period of time I have used scarlet red far surpass any I have been able to obtain in the past. No case failed to show marked improvement in two weeks after the initial treatment. The crusts almost entirely disappeared in this length of time and continued to decrease in quantity with each treatment, until they finally disappeared. The mucous membrane resumed its normal color and thickness, and the ozena was no longer noticeable. This has been the history of all the cases under treatment and I will outline briefly the history of one of the most marked of the group.

Mrs. J. B., age 46; injury to nose at age of 10. This was followed, evidently, by a profuse purulent discharge which lasted about three years. The discharge then decreased but she says she has had "catarrh" with some discharge ever since. Some three years ago the crusting and ozena became so marked that she applied at one of the

dispensaries here in the city for treatment. She first came to the Episcopal Hospital dispensary about one year ago and at that time presented the typical symptoms of atrophic rhinitis. The crusts were large, forming casts of the nasal chambers; there was a marked ozena and an entire loss of the sense of smell. She stated at that time that she had not been able to detect odors for about two years. Treatment was immediately started, the chambers being thoroughly cleansed and various applications made. The application then used, which seemed to do the most good, was a saturated aqueous solution of potassium permanganate, but the crusts and ozena never entirely disappeared, and at no time did she regain the sense of smell.

About December 1, 1913, I started using scarlet red and the results were almost incredible. The crusts and ozena disappeared, the membrane itself thickened and regained its normal color, and to my surprise, after about six weeks' treatment, she told me she was able to smell. I held a bottle of ichthyol under her nose and, with a look of disgust on her face, she remarked that the odor sickened her. I am, therefore, very naturally delighted with the results so far obtained and only hope that they may be as lasting as they were prompt.

In closing I will give an outline of the technic employed. In the first place I originally applied the scarlet red ointment which is used here in the surgical dispensary. This I am told is a 10 per cent ointment. I found, however, that was too stiff, rolling up and falling from the turbinals as fast as it was applied. The druggist then thinned it down for me with liquid petrolatum until we had an ointment which would spread nicely over the turbinals and adhere to them. This resulting ointment was a little over 5 per cent.

I first applied hydrogen peroxid to both nasal chambers and thoroughly removed all crusts. The nose was then carefully sprayed with an alkaline, antiseptic solution, after which the scarlet red was applied to every portion of the mucous membrane in the nose, and the patient instructed not to blow the nose immediately but to wipe the secretions away as they appeared at the external nares. There seemed to be no noticeable reaction after the application, nor did the patient complain of any disagreeable sensations.

After a few treatments, however, the patient notices a stinging sensation after the scarlet red has been applied, which, together with the return of the sense of smell, would seem to indicate a regeneration of the nerve filaments, an observation made also by Dr. Wheelock in his report.

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 2. *Ibid*—(with references), p. 131.
 3. *Ibid*—(with references), p. 131.
 4. CLEMENT F. THIESEN: THE LARYNGOSCOPE, Vol. 18, No. 6, 1908, p. 417.
 5. PHILLIPS: Diseases of the Ear, Nose and Throat.
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A Case of Local Tuberculosis of the Nasal Mucosa. C. COM-
PAIRED. *Revue hebdomadaire de Laryngologie*, April 25, 1914.

Nasal tuberculosis is rare, only 177 cases having been reported in rhinologic literature. Poutchkowsky observed only three cases in his large clinic and Compaired saw only one case in 25 years of practice. In the case reported the extirpation and cauterization of all the diseased tissue was followed by a cure without which there would probably have been a diffusion of the diseased process into the general system.

SCHEPPEGRELL.

Angioma of the Nasal Alae. RENE-CELLES, *Revue hebdomadaire de Laryngologie*, April 11, 1914.

As in other regions, angiomas are accidental productions due to the dilatation and multiplication of the vessels which transmit the blood from the arteries to the veins. Angiomas of the nasal alae are rare. They may cause hemorrhage or difficulty of breathing, if sufficiently large. In the cases reported, the treatment consisted of electrolysis or excision, according to the case.

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