

In hyperplasia we find a dense, resistant tissue, presenting a pale red or gray appearance, which lacks the smooth surface of the hypertrophy. It is not easily indented by pressure with the probe, and regains its regular appearance slowly. It has somewhat the appearance and consistency of fibroid tissue.

These three varieties gradually merge from one to the other, and often we find hypertrophy and hyperplasia in different portions of the tissue at the same time.

Middle-ear disease may result from these conditions of the turbinated tissue—by spreading of the inflammatory process to the membrane of the Eustachian tube, indirectly by pressure, interfering with free muscular action, preventing aëration of the tympanic cavity and by preventing the escape of normal secretions.

Another cause is the entrance of liquids into the Eustachian tube by the too prevalent use of the nasal douche and the habit of some of drawing liquids through the anterior nares. One of the most alarming cases of inflammation of the middle ear I have seen was from this cause.

Pressure of enlarged tonsils will often cause middle-ear disease, but, as a rule, we find it associated with catarrhal disease of the nares.

Besides the complication of middle-ear disease, it may be pertinent to refer to other symptoms of a reflex character, such as asthma, hay-asthma, cough and various forms of cephalalgia, but of which the scope of this paper will only permit a passing notice. Through an intimate sympathy between the nasal mucous membrane and the bronchial membrane, exerted by the vaso-motor system, Bosworth has clearly shown how an asthmatic attack, as well as hay-asthma, is excited by plethora and other irritations of the nasal membrane. Various forms of so-called neurasthenia have been traced by Daly to intra-nasal disease.

Considering the normal functions of the nose, to warm, moisten and filter inspired air, stenosis from any cause is liable to produce various symptoms. The infinitesimal microbe floating in the air may enter the air-passages unimpeded, through the open mouth, and find a lodgement in the lung-tissue; cold air coming in contact with the bronchial mucous membrane may light up an acute inflammation. And, accepting the theory that tonsillitis is caused by absorption of poisonous and noxious elements from liquids and inspired air, we trace the exciting cause from absorption of the fetid discharge passing through the posterior nares and over the olivary glands, and may be from air inhaled through the open mouth. I have observed that mouth-breathers are liable to frequent attacks of quinsy. I wish it understood, however, that I am making no argument against Dr. Browne's theory of the rheumatic origin of quinsy.

The question of paramount interest to us is, can these various forms of diseased turbinated tissue be cured, and what resources have we at our command? Nothing should be done empirically. This indiscriminate use of douches, sprays and swabbing, as well as the popular use of salt-water drawn through the anterior nares, has done untold harm.

When we resort to treatment it should be done scientifically or not at all. The requisite is a forehead mirror, or reflector, and a bright light, accompanied, of course, with the proper nasal speculi and rhinoscopic mirror. Without these we should not attempt to treat nasal disease; it is working in the dark, and our results will be ignoble failures; without accurate diagnosis it is impossible to institute accurate treatment.

If a case of hyperæmia is seen at the commencement of the attack, our object should be to reduce the congestion and prepare the system to resist the sudden climatic changes. Constitutional dyscrasia should be corrected and habits and occupation looked after. A brisk saline cathartic should be followed by the administration of aconite in small and frequently repeated doses until the system is brought under the effects of the drug. A study of the physiological effects of aconite will satisfy one of its utility in acute congestion and inflammation of the mucous membrane. I am in the habit of combining with it ipecac to the extent of producing diaphoresis, and to facilitate this it is well to order a hot foot bath and put the patient to bed. Local applications are of great good, and for this purpose perhaps antipyrine, used in the spray in solution, is the best. Prof. Hinkle, who first recommended it for this purpose, says: "The first local effect of a spray (he recommends a 4 per cent. solution), is a pungent, burning sensation in the nose, at times with reflex pain in the eyes or temple, passing off in a few seconds. This is usually followed by retraction of the turbinated tissue, somewhat more slowly than with cocaine. The mucous membrane is not blanched as with the latter, and no perceptible anæsthesia occurs; however, there appears to be a local sedative action." Dr. Stovell, of Washington, later recommended cocaine, combined with antipyrine, and claims much better results. In no case should cocaine be used alone for any protracted time; its ultimate effects have been found to be injurious. Sponge bathing should be practised, by those who take cold easily, three or four times a week, or every morning, in order to fortify the system against sudden changes in the weather. It is best to use the water cold.

Numerous methods and devices have been tried for reducing hypertrophy, but I will confine myself to those which have been found most effectual. Some specialists pretend to prefer the galvanocautery, but I think there are great objections to