

work which this nerve centre would be called upon to perform with the nasal mucous membrane exposed to rapid changes of temperature, dryness, and moisture, and the irritation of dirt and dust. After a period of years of successful physiological action, the frequently engaged sinuses become permanently dilated, with no power to contract, and the physiological swellings having become pathological hypertrophies, and we have the lesion present which is called chronic hypertrophic catarrh. It becomes a nice question, then, to determine when physiological swelling ceases and pathological hypertrophy begins. Up to a certain point swellings in the anterior nasal spaces are desirable, beyond this they unnecessarily occlude the nostrils and give rise to the symptoms of nasal obstruction. One conclusion to be derived from all this is, that the anatomical structure and the physiological function of the nasal tissues are in themselves strong predisposing causes in producing chronic catarrh, or in causing the conditions which are considered symptoms of this disease. Still another point in the etiology of chronic nasal disease, or I might say another strong factor of irritation which is frequently found in the nasal chambers and which furnishes clear indication for surgical treatment, is the contact between the soft tissues of the nose and the cartilaginous and bony septum. This point is disputed by some observers who believe that such contact is not irritative. Even though the septum be symmetrical and its surface smooth, there comes a time when the engaged erectile structure becomes sufficiently expanded to come in contact with it, and contact or friction between these two surfaces is irritating, and when long-continued produces rapid changes in the tissues in the line of chronic catarrhal inflammation. This condition comes about more readily and at an earlier period when contact with the soft structure is invited by the protruding point of a deviating septum. The nostril which is occluded by the convexity of a deflected septum, will always be found to be in a condition of chronic inflammation, the mucous membrane much more reddened than in the opposite side and the secretion more abundant. Other factors besides the irritation of contact enter into the cause of inflammation here, but contact is a very considerable feature of the etiology. One more pathological condition is very common, when instead of deflection of the septum we find

either cartilaginous or bony ridges, or both together, extending along the sutural lines, the most frequent location being at the junction of the vomer with the perpendicular plate of the ethmoid behind, and with the triangular cartilage further to the front. This is the suture that runs horizontally along the floor of the nostril. Excrescences here which touch the soft parts are apt to be overlooked during an examination, if the patient's head is tipped backward. These ridges are composed of cartilage along their supra margin and the lower border of the triangular cartilage, and of bone below the vomer they occur very commonly, less commonly at the other sutures. Early in life there are probably congenital causes which lead to this overgrowth at the sutural line; and later the overgrowth is due to exposure to the usual irritants. It is a pathological condition sufficient to keep the entire nostrils in a condition of chronic catarrhal inflammation. The irregularities of the septum which have been mentioned, usually occur opposite the inferior turbinated bone. Sometimes, however, the bend in the septum is higher up opposite the middle turbinated bone, and the contact here, which is sometimes discovered with difficulty on account of its concealed position, will be found to fully account for the chronic condition of irritation which is found in the nostril. This can be demonstrated by removing the convexity of the septum, when all irritation will subside. It will be seen that nasal obstruction is the broad term which covers the pathological conditions which have been mentioned; and I venture to make the prophecy that the name "chronic nasal catarrh" will not long be in fashion. The symptoms of this disease are those which naturally follow the stoppage of a channel which is intended for the passage of air. Occlusion of the nostril anteriorly causes a rarefaction of air behind the obstruction, and with diminished atmospheric pressure, we have immediately venous congestion and passive swelling of the lining membrane of the channel. Such swelling is in no sense inflammatory, and should not be designated a chronic catarrhal process, any more than hypostatic pneumonia should be likened to a catarrhal pneumonia. A little further back it stood near by, to speak of the so-called acute coryzas which patients suffer from so frequently during the winter months, "A cold in the head all the time," as they express it. They are not acute coryzas, properly