

drainage for the pus is provided it may so bulge the thin walls of the sinus as to press upon and injure the optic nerve. As a matter of fact, Professor Hirschberg's material showed that almost half the cases of one-sided optic neuritis are traceable to nasal disease. Mendel remarks that one-sided choked disc is mostly due to an affection of the orbit, double-sided mostly to an intracranial cause. Lapersomme insists on the characteristic of one-sided disease. He says, "Optic neuritis is rarely seen in inflammation of the frontal sinus, more often in inflammation of the maxillary or ethmoid, but it is produced, if at all, by inflammation of the sphenoidal sinus. A chief characteristic of neuritis due solely to sinus inflammation is that it is unilateral. . . ."

A double edematous neuritis ought rather to make one think of an intracranial process. While Onodi thus calls attention to the fact that empyema of the accessory sinuses is a cause of optic neuritis, he also admits that it is not the only cause, and also calls attention to cases in which empyema of these sinuses has produced no effect upon the sight. In summing up, he says, "A causal connection and cure after treatment are asserted in the cases mentioned by Lor, Coppez, Hajek, Fleiss, Hoffman, Mendel, Halstead and Sargent F. Snow. Causal connection confirmed by necropsy are established in the cases of Duplay, Horner, Panas, Rouge, Russell, Raymond, Ottman, Demarquay and Voissius. In regard to the symptoms shown by such cases when they are brought to the consulting-room, Posey remarks that they closely resemble cases of eye strain, therefore refraction is usually advised. In some cases, he remarks, this is a distinct advantage to the patient, when atropin is used to dilate the pupils. The dilating action is of no advantage, but he says the atropin sometimes dries up the secretions in the sinus, and thus cures the condition.

Cure not taking place, however, dimness of vision (unilateral) would be noticed, vertigo and headaches. On ophthalmoscopic examination the edges of one disc would show a slight "veiling" or even a woolly appearance, while the veins would show moderate distention. Concentric narrowing of the field of vision would now be noticeable. Probably now the case would be referred to a rhinologist for further examination, and in many of the cases, if pus is found, drainage of the sinuses completely relieves the ocular condition.

Other nasal conditions, however, may produce disease of the eye.

In one case, a hypertrophied turbinate was suspected to be the cause of optic neuritis, and on the removal of the turbinate the neuritis disappeared. In a case of nasal polypus, which was