

## THE EYE IN DISEASES OF THE EAR.\*

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The advance that otology has made during recent years accounts, no doubt, for the interest which is being taken at the present time of the effect upon the eye of aural disease. This progress has brought forth searching investigations of a physiological and pathological character, so that direct relationships have been shown to exist that heretofore seem to have been completely ignored. The trifacial nerve innervating both the ear and the eye, the correlation of the reflex centres of both the optic and auditory nerves, the motor and sensory ganglia, connection of the trifacial, the facial nerves, etc., demonstrate clearly the close association that exists between the two most important sense organs.

Optic neuritis occurring as the result of aural disease has long been known and was formerly thought to be the only ocular trouble resulting from aural lesions. Since then nystagmus, hemianopsia, ocular paralysis and blepharospasm were observed. Politzer cites examples of myosis and disturbances of accommodation as having their origin in aural conditions.

Some claim that nerve changes may be observed at times from suppuration of the tympanic cavity without evidence of intracranial affection, and explain it as being due to damage to the carotid plexus of the sympathetic inducing vaso motor disturbance in the optic nerve, or that these changes might also be brought about by the tympanic suppuration, producing irritation in the perivascular sheaths of the carotid venous plexus as well as in those veins which pass directly from the tympanic cavity to the membranes.

However, it is difficult to prove that a slight meningitis does not occur in these cases. The writer has observed blurring of the disc in suppurative otitis, but it was always in long-standing cases. This would suggest the possibility of erosion through the bone and consequent meningeal irritation. Optic neuritis is a frequent occurrence in brain abscess of otitic origin, specially in the later stages and in those of considerable size; it may not be present in abscess with a short course or in very small abscesses with a short period of inflammation.

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