

attacks the conjunctiva, and the same may be said of the bacillus of influenza. The streptothrix found in canalicular concretions is not identical with the leptothrix buccalis. Tubercular infection of the conjunctiva is more commonly endogenous than ectogenous. The handkerchief is undoubtedly a frequent medium for transmission, and there is another way in which the nose is responsible for epidemics, *viz.*: the infective agent passing down the tear duct is scattered broadcast by sneezing and coughing. Lacrymal sac infection from the nose is also made difficult by the different ways in which their mucous membranes react to the same organism. They would appear to possess different affinities or receptors. The sac is relatively immune to the gonococcus, and even the pneumococcus, the most common organism found, requires assistance, such as the stoppage of the duct by nasal conditions. Whether tuberculosis of the sac originates more frequently by blood infection or from the nose or conjunctiva is unsettled. In a young man on whom I recently operated the nose presented the typical appearance of lupus involving the anterior half of the inferior turbinal and floor of the nose, and on the same side a boggy lacrymal mucocele. Tubercle bacilli were found by Dr. Archibald in sections from the turbinal, yet the sac when excised showed only the changes of simple inflammation. Here all the conditions necessary had existed for months, yet infection had not taken place.

Orbital complications of infectious diseases formerly considered metastatic, are now known to be due to infection from the accessory sinuses.

Even the orbital cellulitis of infants need not, as stated by Axenfeld, be excepted, for the ethmoidal cells are present at birth. Tubercular periostitis of the orbit is usually due to metastasis by the blood stream, but purulent periostitis of such origin is rare, and cellulitis extremely so. The bacteriology of orbital cellulitis is identical with that of nasal sinus disease.

Fetid antral empyaemata, which are so often due to carious teeth, contain pyogenic and putrefactive organisms, but non-fetid cases contain no putrefactive germs. Pneumococci are nearly always present, either alone or with streptococci or staphylococci. Other organisms are rare.

Extension to the orbit may be by the venous channels or by necrosis of the intervening bone plate and periostitis. Thrombophlebitis ophthalmica can also be due to thrombosis of the cavernous sinus, itself infected from a septic nose, mouth or ear. The only case I have ever followed proved post-mortem to be infected from the posterior ethmoidal cells, and that was in a