

perience demonstrates that a slight inflammation of one or more of the cavities often shows a particular tendency to involve the meninges or cerebrum; yet, on the other hand, closed empyema may exist for years without affecting the meninges, and therefore, besides the cause of the infection, there are certain predisposing factors which must be considered:

1. Congenital defective formation in the bony walls of the nasal cavities.

2. Partial or complete closure of the normal apertures of the cavities.

3. Pronounced virulence of the infectious material.

There can be no doubt that many inflammatory products of the nose are carried to the meninges by the nasal veins, which anastomose with those of the dura mater. Zuckerkandl demonstrated, by injecting a fluid into the superior longitudinal sinus immediately above the frontal cavities, that the veins in the mucous membrane of the frontal cavities and those leading into the foramen cæcum, as well as those of the superior half of the nose, were filled with fluid injected from above. The anterior and posterior ethmoidal veins empty into the superior longitudinal sinus usually directly, at other times they enter the meninges through the superior ophthalmic vein, and less frequently through the inferior ophthalmic; there is also a vein which passes through the lamina cribrosa and enters into the superior longitudinal sinus or into the veins of the olfactory tract.

Schäfer and Thane state that "colored fluids can be made to pass from the subarachnoid space through the arachnoid villi into the prolongations of the subdural space, which surround those villi within the venous