

weight attached to it by different rhinologists varies very greatly. Gougenheim says that transillumination is often embarrassing. On using it he has found well-marked suborbital umbra indicating pus, and on opening the antrum found none, the darkening being produced by a thickened mucosa. Grant, on the other hand, thinks it may often be useful in a negative way. In several suspicious cases where pus was believed to be present, he found on transillumination the translucency so clear and perfect that empyæma of the sinus could be positively excluded and operation forbidden. These are only exceptions, however, and as a rule the use of the electric lamp in the mouth will induce an umbra of more or less density beneath the lower eyelid in every case of antral disease. Milligan tells us that he uses Voltolini's lamp in every suspected case, and that whenever it failed to produce a light zone beneath the eyelid and a red and luminous pupil, on opening the antrum pus had been found.

Greville Macdonald lays great stress on the fact that where we have suppuration with granulation tissue or polypi in the middle meatus, we can seldom be sure of the extent or severity of the disease. He says he has frequently seen cases where suppuration of the antrum was supposed to be the whole trouble, but in which it was afterwards proved that the ethmoid cells and the frontal sinus were just as seriously involved; while on the other hand, cases which had long been treated for so-called necrosing ethmoiditis turned out to be overlooked cases of profuse antral suppuration.

There is one other aid to diagnosis which has always received a certain amount of favor, that is exploratory puncture, either through the inferior meatus or the canine fossa. I have never seen a case requiring its use, and I doubt if it is often really necessary.

For several years I have used transillumination by the electric lamp in all cases of suspected antral disease, but I cannot say that the result was sufficiently marked to make the diagnosis positive by it alone in a single case. Although I have not opened an antrum without finding pus, still the umbra from transillumination was not marked enough, even with the darkened pupil added, to justify opening without the presence of more positive signs.

*Treatment.*—Bosworth tells us that “the essential features of the treatment of a case of suppurative disease of the antrum consists in opening the cavity for proper drainage, and subsequently its thorough cleansing and disinfection.” In the latter clause all rhinologists agree. In the former they differ widely in their methods of procedure, while they unitedly accept as imperative the removal of any polypi, granulation tissue or hypertrophic condition of the middle turbinated which