

NEUROLOGY.

Total Blindness from Cortical Lesion.

By Dr. L. Bouveret, Agrégé, médecin des hôpitaux de Lyon.
(Translated from *Revue Générale d'Ophthalmologie*.)

The researches of Munk appear to have demonstrated that the centre of visual perceptions is found in the cortex of the occipital lobes. Each occipital centre is in relation with the two retinas. The destruction of the cortical substance of the occipital lobe of the left side is followed by the paralysis of the left half of the two retinas, in other words, a lateral right hemianopsia, (experiments on dogs and monkeys). Does such a similar localization of visual perceptions exist in man? A certain number of observations tend to demonstrate it.

M. Seguin has collated 45 cases of hemianopsia due to lesions of the encephalon. These are divided into six groups. The last contains 16 cases in which the hemianopsia is related to destructive lesions of the cerebral cortex alone or simultaneously in the cerebral cortex and in the subjacent white matter. Amongst the 16 cases there are a number in which the lesions are extensive and do not exist only over the regions where is found the probable seat of the visual cortical centre. But in four cases the lesion affects only a very limited portion of the cerebral cortex. Now these four lesions are in a manner superposable; they all engage *le coin* that is the internal face of the occipital lobe. They encroach more or less upon the neighboring regions of the cortex, for example on the posterior extremity of the temporo-occipital convolutions; but the destruction of a notable extent of the cortex of *le coin* is never wanting. Thus there are in the experimental facts and those of pathology a very remarkable analogy. Dr Bouveret adds a fifth example to Seguin's in the case of a patient in whom the seat of the lesion was diagnosed from the conclusions arrived at by M. Seguin. In the patient a softening (un ramollissement) probably of embolic origin has destroyed the cortical substance of the two angles (*coin*) and the principal symptom noticed during life—we may say the unique symptom, was a complete abolition of vision. The article here gives at length a complete history of the patient, a workman on the highway, from the time he was admitted into the hospital, having been seized with the malady suddenly. He lived 17 days after the attack. In the autopsy the arteries of the base were found

atheromatous whilst the two posterior cerebral arteries were found to be obliterated by a reddish grey clot, quite firm, and quite filling the calibre of the vessel. In relation with these obliterations of the arteries were found two foci of softening of unequal extent on the lower internal surfaces of the brain. Throughout all the area the pia-mater was adherent to the cortical substance. (The more minute details of the autopsy as regards the extent and location of the lesion are given at length). The rest of the cerebral cortex carefully examined showed no lesion. Examination of the different organs of the body showed the existence of interstitial nephritis, with associated atrophy of the cortical substance of the kidneys and hypertrophy of the left ventricle.

The coincidence of the centres of softening occupying the same situation on the inferior internal face of the two hemispheres is quite remarkable. The blindness was the capital symptom, it was sudden and complete and persisted until death. To ophthalmoscopic examination the retina and transparent centres presented no lesion. At the autopsy the optic nerves, chiasma, etc., were all found healthy. Whether the thromboses were autochthonic or of embolic origin, matters little, says Bouveret, although he inclined to the opinion that it was of embolic origin.

BACTERIOLOGY

Inoculation Experiments with Bacteria of Pear Blight.

To many of our readers, perhaps too much accustomed to think of the modern researches in bacteriology as having an interest only for them in their bearing upon human disease, we present a *résumé* of investigations upon *pear blight*, chiefly known by the blackening of the branches and foliage, and usually accompanied with a putrefactive odor. The inoculation experiments have many points of interest in elucidating the predisposition to immunity from contagious diseases, which have so long presented difficulties to the modern germ theory of disease. It may attack any part of the tree excepting, perhaps, the roots, and usually progresses till the tree succumbs. Prof. T. J. Burrell, Illinois, in 1877 noticed bacteria in connection with pear blight. In 1880 he made an extended series of inoculations, showing that the disease could be easily communicated from