

*Case II. (24 hours).—Captain Stokes.*

This was only a portion of a cord. It showed a complete transverse division about the level of the first dorsal segment from a rifle bullet. Death occurred twenty-four hours after the injury. Sections stained by the Bielschowsky method show that the fibres are swollen, and in many instances broken. Many fibres are thrown into kinks and twists, which are sometimes so marked that complete loops are formed. The large majority of the fibres, though, in this section are normal.

*Mallory.*—A transverse section near to the lesion shows that in both lateral regions considerable disturbance has taken place with destruction of tissue. This is more marked on one side than on the other. On the least affected side one sees that a lateral septum, where it comes into relation with a vessel some distance from the surface, is torn, and the surrounding tissue shows a small hæmorrhagic infiltration. There is some swelling of the nerve fibres with vacuolation. On the opposite side the disturbance involves a much larger area. Several of the septa are torn, and in each case there is an infiltration of blood cells with disturbance of the surrounding nervous tissue. An illustration of the peculiar distribution of the shock effects is well shown here. One of the main lateral septa has evidently felt the force of the disturbance particularly, for along its course, where it comes in contact with a small vessel, the tissue is lacerated, a small hæmorrhage resulting. During its further course through the fibres of the white matter the tissue is quite normal, but when the septum reaches the grey matter of the lateral horn the structure is again torn, and three small hæmorrhages are observed. Around one of the branches from this septum a small localised area is affected. Two nerve fibres are involved.

The surrounding tissue is torn and infiltrated. The nerve fibres are swollen, particularly one of them, to about six times the size of those in the neighbourhood. The swelling almost entirely affects the axis cylinder, which is markedly œdematous. It shows a finely granulated appearance, the fibrillæ, which are irregularly separated by the œdema. Many fibres in this region are similarly affected, and a considerable degree of vacuolation is to be observed.

In longitudinal section numerous small infiltrations are found