

pressure or of transverse division. The extremities are allowed to fall by gravity into any position, and thereupon, stretching of certain muscles takes place, which hastens the onward progress of the condition. I have seen quite a number of cases and have read reports of others, where fracture dislocation had occurred and pressed upon the cord, producing motor and sensory paralysis, etc. Operation being performed at once, no damage to the structure could be detected macroscopically, yet the after results were very unsatisfactory.

The reason for this is as follows: If pressure be exerted upon the spinal cord suddenly, and it may be only momentarily, no changes may be detected in the structure by the eye, yet there is no doubt that a marked molecular change occurs in the axones of the spinal neurones inhibiting function,—as shown clinically by the paralysis of motion and sensation in the lower extremities, etc. In cases where the pressure is not momentary, but allowed to continue for a week or ten days and at the operation no alteration in the cord is detected, yet, like the above, the molecular change must be very grave and no doubt greater than the results where pressure is only momentary. Here not only molecular change may be present, but also local anæmia from pressure on the blood vessels, which if long continued will lead to necrotic changes.

The majority of cases of fracture dislocation and pressure on the cord, when brought into the hospital show the symptoms of motor and sensory paralysis with increased reflexes and spastic condition, pointing to a serious involvement of the cord, but not to transverse division, this last being indicated in those cases in which flaccid and sensory paralysis and loss of the reflexes is the symptom complex. An examination of the muscles of the lower extremities, if made at entrance usually show no alteration from normal to electrical stimulation. That is to say, when the lesion has been confined, as it is in the large majority of cases, to the lower dorsal cord, affecting only one or two segments, the lumbar enlargement is free from hæmatomyelia or any such injury as would produce an immediate effect on the lower motor neurone. After a day or so has elapsed in many of those cases, the reflexes are diminished and shortly after this reaction of degeneration becomes typical.

Now we see some cases may pass from a spastic to a flaccid state with abolition of the reflexes and reaction of degeneration, and, in a period varying from a few days to a week, present a typical picture of transverse division of the cord—motor and sensory paralysis, absence of the reflexes, flaccid state of the muscles and typical reaction of degeneration. If operation were carried out at this point, we should probably find on cutting down