

to the cord no alteration in structure macroscopically. Pressure being removed, the progress of the case is more frequently downwards than stationary. Why is this so? Pressure has produced molecular changes in the axones preventing stimulation from coming down or going up, with the result that we have isolation alteration or physiological deterioration, due to stimulation not being carried to the cells of the anterior horns below the lesion, with the result that changes such as flaccidity and reaction of degeneration in the muscles occur clinically, as above stated.

The cell bodies of the neurones to carry on their functions must have nourishment as well as stimulation, or they undergo degenerative changes or physiological alterations, and following this, secondary changes take place in the muscles and other structures of the extremities, as they, likewise, require stimulation and must be bathed in a healthy circulation. Now, stimulation and circulation cannot take place if the injury to the cord is as severe as above stated, and it is necessary that proper treatment such as electricity, massage and the prevention of deformity by the use of splints, and of adhesions of the joints by the frequent movement of the limbs should be carried out.

It has been shown by James Collier in cases of transverse division of the cord with a flaccid and sensory paralysis and loss of reflexes, that, by the use of electricity with needle electrodes placed into the muscles or nerves, after a time sufficient tone is produced in the muscles that upon striking the patella a reflex can be obtained. This goes to show very clearly the wonderful effect of electricity in producing tone, the presence of tone being an expression of an approach to normal condition of the structure acted upon.

The order of appearance of motor and sensory paralysis in progressive lesions is practically constant in the large majority of cases as follows: Motor paresis and spasticity, increase of the reflexes, anæsthesia below with local hyperæsthesia, sphincter paralysis, thermoanæsthesia and analgesia, tactile anæsthesia, followed by flaccidity with loss of the deep reflexes, progressive lowering of the faradic excitability, muscular wasting and loss of the sphincter tone. Pain and temperature are always earlier affected, and to a greater extent than sensibility to touch. The sensory loss in the usual cases, such as those involving the lower thoracic region involves the skin in order of the length of the sensory neurones supplying it, the soles of the feet being affected first, then the legs and later the thighs, but when the anæsthesia reaches the trunk it extends upwards in segmental order. When there is recovery the first signs to show themselves are, as a rule, subjective sensory disturbances. These are manifested in some cases first in the feet, while