

ion of the cord in man was known to be complete, where regeneration has been demonstrated histologically and clinically, except in the case I shall discuss later, where complete transverse division of the cord was seen at the operation, and after the lapse of months clinical symptoms of regeneration were present with histological evidences at the post-mortem examination. There have been one or two cases reported as examples of total lesion with persistent knee jerks, but, that the lesion was absolutely complete, admits of doubt.

The supposed reason why regeneration does not take place in the spinal neurones of man, is the absence of the neurolemma sheath in those neurones. It has been established by many workers that the nuclei of the neurolemma sheath is a considerable factor in the regeneration of the peripheral nerves.

Being of the belief that regeneration could occur as shown by Gowers and others, I decided that upon the first opportunity, I should use every means in my power to aid such a case by appropriate treatment, and thereby help to produce regeneration.

In the large majority of cases injury of the cord takes place in the lumbar or lower dorsal segments. The time that would elapse before regeneration took place would be very considerable on account of the injury occurring in that part of the axones so remote from the cell bodies which are the seat of their vital functions. It is a well known fact that in suturing a divided peripheral nerve in the distal end of an extremity, considerably more time elapses before function is re-established than in those cases where the peripheral nerve has been sutured in the proximal part of the extremity, that going to show regeneration takes place quicker when the injury is in close proximity to the cell body.

Why is it, if regeneration does occur, as shown by Gowers, that so few cases improve after serious transverse myelitis, traumatic or otherwise, and that none, as far as I am aware, recovered where transverse division of the cord occurred due to fracture dislocation, and where at the operation complete severance of the cord was detected? Unfortunately many surgeons and neurologists, with serious results, frequently recommend, in cases of fracture dislocation of the spinal column associated with motor and sensory paralysis of the lower extremities, that operative procedure be delayed. In other cases where operation is advised at once the surgeon cuts down and removes the pressure on the cord and if transverse division is present, the prognosis being very serious, the patient is, as a rule, put back to bed and little more is done, with the result that grave secondary changes take place in the muscles, blood vessels and nerves and in that part of the cord below the seat of