

Intradural Lysis and Peripheral Nerve Implantation for Traumatic Obsolete Incomplete Paralysis

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Twenty-eight patients who suffered traumatic obsolete incomplete paralysis were treated with intradural lysis and peripheral nerve implantation by a microsurgery technique. The endorachis was opened and the fibrous bands adhering to the spinal cord from the arachnoid, pia mater spinalis, ligamenta denticulatum, and the initial part of the nerve root were completely relieved. The abnormal spinal cord was then opened by three to six incisions, which were each 0.1 mm to 0.2 mm deep and longer than the abnormal portion. A cyst found in the back or side of spinal cord was opened and the liquid in it was drained. After that, the denuded spineurium and perineurium of the autogenous sural nerve were grafted, which makes the character and aspect of the nerve like the cauda equine. The nerve was aligned lined up longitudinally implanted into the incised spinal cord, and the cyst was sutured along with the pia mater spinalis with 9-0 scatheless wire. Finally, the endorachis was sutured or covered by sacrospinal muscle. These patients were followed for 2 to 4 years (average 2.5 years), and the sensibility and motion of each increased at least one grade. The strength of the main muscle was increased two grades and reached four grades in six cases, and the capability to walk was recovered. Relieving of the adhesion in the endorhachis, carving the cicatricial spinal cord, and implanting the autogenous peripheral nerve yields good results by initial clinical observation for traumatic obsolete and incomplete paralysis.