Peripheral nerve injury

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The peripheral nervous system consists of afferent- 100 --- ---- .._--------- -- ..--- .-- ---'-- -------_ .._._---~--"" SUMMARY AND CONCLUSIONand efie ent fibers comprisiJ~ nerve roots, plexuses,and peri heral nerves. It constitutes an intricate systomwith -afferent sources of stimulation and effectororgans.The peripheral nerve is a yellow white, cord-likethe direction of the nerve. Peripheralnerves c nsist of nerve fibers which are held togetherwith co ective tissue. This cOIDlective tissue is ofInstances an artery is present on its surfacesome ical significance. That which surrounds individualne e fibers is called endoneurium, the portionwhich bi ds nerve fibers together into bundles or funiculiofperineurium, and the connective tissue sheathtermed epineurium the most commonnerve injures are open wound to cion, and fractureand islocation.is,i"Wh n a peripheral nerve is injured there may be ananatomic or physiologic interruption of function. In thepresence of an anatomic interruption or an irreversiblephysiolo ic interruption. The portion distal to the point"of injur undergoes degeneration, while the prox~~l endof the n rYe regeneratres. In the distal end, the axonsII icovered with myelin rapidly disintegrate within the schwarmtubules The empty schwarm tubules remain but gradually'...LLLLLLL,'·L'jDtJ;'~:f-i4i i b(-101becomes reduced in size due to connective tissue proliferation.In about 3 months the distal tubules becomes aidin rege eration. Consequently, time becomes an importantin obe ing good results following nerve suture.thegrowthWile the distal portion of the nerve degenerates,'mal end of an injured nerve regenerates withthe cells of schwarm. Under ideal circumstances,extend into the hollow tubules in the distal" :r '] :~U! i 'J :~l:oiwll :,0--LfGrowth, under these circumstances, is estimatedat 1.7 • per day. If the cut nerve ends are not inproper pp;.;oximaiton. The regeneration of the proximalend pro eeds abnormally. The regenerating fibers twist andturn an collectively result in the formation of a neuroma.A bulbo s enlargement at the proximal end and a smallerbut sim lar enlargement occurs at the distal end in laceratedan nonsutured nerves. Nervous are of tuiotupes,the jis oneis nervouma on nerve in continuity which are(espiud e neuroma and lakrel neuroma) the second type resultingrom severance of the nerve which are one developedat the roximal end and the other at the distal end. Thethird t pe is computation stump. Nerve which developedafter putation of a limb.IL102 --LLThere e five degrees of enjuries which are :-result in from interruption ofuction at the site of injury •fl••• 1-. f,..,2-nd degree if the axon is severed.i..',. J- d degree resulting from disintegnation of axondegeneration, disorganization of the internalof the funiculi and loss of endoneurial tube,~- ': { , JIW] ..)4- Fo th degr~e resulting from disorganization of

bundles’JUjJ,0J’~’J!~’J5- Fif h degree resulting from loss of continuity of theneediately following the interruption an injurednerve, muscles innervated by it are paralyzed, bosingtheir one and becoming flaccid. At the end of about 1week, he response to faradic current is lost. Stilllater, wormlike movements appear upon stimulation withgalvan”c current reaction of degeneration. The skin surfaces pplied by the affected nerve is anaesthetic fromthe t ne of inj ury. The area of anaesthesia is also dry,due to vasomotor ,;paralysisin the area of the sensoryloss. Later. other trophic changes, such as smoothness,ss, exfoldation, and atrophy may result in seriousdistrubance of the affected part. The greateratrop , the poorer the results of surgical treatment in’lJlate ases. The highly specialized small muscles of thehand ave little or on return of function after the”near atrophy” point has been reached.-103, •••I~The proper management depends upon accurate diagnhichincludes clinical history, clinical examinatcludingclinical inspection of the affected part,ation of the site of injury” motor system, sensory, examination of sympathetic system, radiological,elect ical reaction and finally electromyography andmuscl biopsy.osisionexam;~~I~!~, ~JL’:L’r~~So the t~eatment may be conservative or surgical :-- Con ervative treatment aiming to :-1. Re ieve pain and make patient comfortable.2. Pr tect the affected limb from exposure to old whichthe condition.J. the paralysed muscles and anaesthetic skinf4. .ulate the circulation through the denervated regionsThe duration of conservation depends upon the conditionof peripheral tissues, the extent and severity ofnon-n ural wounding, and the course of recovery.~iOn the other hand the surgical treatment indicatedIn ca es of a partial section in a fresh wound; the sect-’;~~~rl~n_+”~~ n-l’+h” ,.,,,-..v