Microneural anastomosis with fibrin glue: An experimental study.

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Abstract:

An experimental study was designed to compare the histological analysis of nerve anastomosis with

10-0 microsurgical sutures and fibrin adhesive. Wistar albino rats' sciatic nerves were transected

and repaired either with fibrin adhesive-Beriplast P (M/s Centeon - Cadila Health Care) or with 10-0

monofilament microsutures. Histological assessment was performed at 10, 20, 30, 60 and 90 days

after surgery. Functional recovery of the sciatic nerves started at two months and was near normal

by three months. Separation of the stumps did not occur in any of the glued nerves. Histological

evaluation showed no appreciable difference in the outcome of nerve regeneration after

microsurgical repair using sutures or fibrin tissue adhesive. However, inflammation and granuloma

formation were appreciated at the suture site, which presented a focal hindrance to myelin and

axonal regeneration. Fibrin glueing is attractive for clinical purposes, since it is simpler and less time

consuming than suturing.