Stabilization and accurate trimming of nerve ends: Practical use of fibrin glue: Technical note.

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Abstract:

OBJECTIVE: Peripheral nerve transection usually results in protrusion of the endoneurial contents ('mushrooming'). Trimming of the nerve ends before repair is often necessary to achieve cut nerve end planes. In this technical report, we describe a technique for stabilization and accurate trimming of nerve ends using fibrin glue. SURGICAL TECHNIQUE: The nerve ends of divided peripheral nerves are coated with fibrin glue and subsequently trimmed using a razor blade before repair. RESULTS: When fibrin glue is applied, a firm layer with a rubbery consistency is formed around the nerve. This layer stabilizes the nerve ends during trimming, and a clear-cut plane of the nerve can be achieved. Moreover, the fibrin glue stabilizes the nerve ends during manipulations caused by suturing of the nerve. CONCLUSION: The technique results in easier handling of the nerve during trimming and manipulation, minimal tissue damage to the nerve, and a clear-cut plane of the nerve.