Effects of fibrin glue on rat facial nerve regeneration.

Authors: Medders G., Mattox D.E., lyles A.

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Abstract:

Studies of nerve repair comparing fibrin glue with suture techniques have produced mixed results.

To test the effect of fibrin glue on nerve regeneration without the confounding variables of distraction

and/or movement of the anastomosis, nerve repairs were performed with and without fibrin glue on

the intratemporal facial nerve of the rat. The location of the nerve transection was the same for

control and experimental nerves, but on the experimental side the nerve was repaired with fibrin

glue and on the control side of the nerve was reapproximated in the fallopian canal, without glue or

sutures. Axon counts distal to the repair revealed no statistically significant difference between the

two methods of repair. This result suggests that mechanical obstruction by the firbrin glue between

the nerve ends has a negligible effect on nerve regeneration.