[Application of fibrin glue in facial nerve repair]. [Chinese]

Authors: Wang Q., Hua Q., Wang S.

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Abstract:

This animal experiment was aimed to apply fibrin in facial nerve repair and to quest for technical improvements in facial surgery. In each of 15 healthy large ear white rabbits, a unilateral 5 mm intratemporal facial nerve gap was created, the proximal and distal stumps were inserted into chitin tube, 1 ml autologous fibrin glue was applied around the anastomotic zone, and no suture was employed. At 3 months and 5 months after opertion, electrophysioligical study was performed. Compared with normal nerves, the regenerating nerves in both the chitin tube bridged group and the perineurium suture group had longer incubation period, lower amplitude, slower nerve-muscle conduction velocity at 3 months postoperatively. The differences were distinctly significant ($P < 0.01$). Although being decreased at 5 months after operation, the differences were still statistically significant ($P < 0.05$). There were no significant differences between the chitin tube bridged group and perineurium suture group at 3 months and 5 months, respectively. The study suggests that facial nerve repair using fibrin glue and chitin tube has the advantages of being easier,faster and more stable.