Long-term functional outcome in facial nerve graft by fibrin glue in the temporal bone and cerebellopontine angle.

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Abstract:

The aim of this study was to evaluate the functional outcome of facial nerve repair with fibrin glue in end-to-end anastomosis and intermediate nerve graft. Thirty-six patients undergoing facial nerve repair by end-to-end anastomosis or facial nerve grafting using exclusively fibrin glue between 1986 and 1999 were included in this retrospective study. The population comprised ten vestibular schwannomas (28%), nine temporal bone fractures (25%), seven facial nerve schwannomas (19%), four facial nerve hemangiomas (11%), two iatrogenic facial nerve interruptions (6%) and four miscellaneous facial nerve lesions (11%). Data were reviewed concerning etiology, location of the nerve interruption, type of repair and postoperative facial function according to the repaired facial nerve recovery scale (A: normal; B: independent movements of eyelid and mouth; C: strong closure of eyelids and mouth; D: incomplete eyelid closure; E: minimal movement; F: no movement). Eleven patients (31%) underwent end-to-end nerve anastomosis and 25 (69%) underwent intermediate facial nerve grafting. The mean follow-up period was 50 months (range: 3-95). Among patients followed-up more than 18 months (n = 20), a score of B or C was obtained in 16 patients (80%), a score D in 2 cases (10%) and a score E in 2 cases (10%). The type of repair and the site of interruption did not influence the results. Fibrin glue is a simple, rapid and efficient means of facial nerve repair. In case of intraoperative facial nerve interruption, this type of repair can be attempted in any location at the time of the tumor removal.