A Rat Model for Intratemporal Facial Nerve Crush Injuries

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ABSTRACT

RESEARCH QUESTION: Although intracranial and extratemporal facial nerve injury models have been described, an intratemporal injury model is lacking. This model is needed for translational research aimed at improving nerve recovery in the fallopian canal. The laboratory setup, anatomy, and surgical technique are described.

RESULTS: The success of the facial nerve crush injuries was apparent upon physical examination of the animals. Our animals were followed for at least eight weeks postoperatively, and no signs of significant weight loss or physical distress were observed.

CONCLUSION: This technique offers the unique opportunity to study intratemporal facial nerve crush injuries in the adult rat. Future directions include exploring new therapeutic methods of enhancing neuronal cell survival and increasing neural regeneration following intratemporal nerve injury.

REFERENCES


This work was funded by United States Department of Veterans Affairs pilot grant 1H1-70-7.