Transient Facial Nerve Paresis Following Abdominal Fat Graft Reconstruction

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Introduction

• Transient facial nerve paralysis has been previously described in case reports following administration of local anesthetic with lidocaine due to sodium channel blockade.

• However, there is no data in the literature describing temporary facial nerve paresis after placement of tissue for reconstruction of a parotidectomy defect where local anesthetic was administered for abdominal fat graft harvest only.

Methods

Case Report

Study Design

We describe a case report of transient facial nerve paralysis following direct contact with abdominal fat graft reconstruction following superficial parotidectomy for a 1.7 cm oncocytoma, where local anesthetic with lidocaine was administered to the abdomen only prior to fat graft harvest.

Mechanism of Action Lidocaine

• We describe a case report of transient facial nerve paralysis following direct contact with abdominal fat graft reconstruction following superficial parotidectomy for a 1.7 cm oncocytoma, where local anesthetic with lidocaine was administered to the abdomen only prior to fat graft harvest.

Results

• Ten cubic centimeters of one-percent lidocaine with epinephrine was injected into the periumbilical region prior to abdominal fat graft harvest.

• The fat graft was then placed into the parotid bed in an overlay fashion superficial and with direct contact to the facial nerve.

• Following surgery, the patient experienced significant facial nerve paresis (House Brackmann IV/VI), which resolved completely within four hours.

• This transient facial nerve paresis was thus attributed to abdominal fat absorbed lidocaine having direct contact with the facial nerve causing sodium channel blockade.

Conclusions

Facial nerve paresis following administration of local anesthetic prior to parotidectomy is documented; however, caution should be used prior to administration of local anesthetic to reconstructive harvest sites in order to prevent sequelae of transient paresis from direct contact secondary to sodium channel blockade.

References