

MICROVASCULAR FREE TISSUE TRANSFER IN PATIENT WITH MYASTHENIA GRAVIS: A CASE REPORT MYASTENİGRAVİS'Lİ BİR HASTADA MİKROVASKÜLER SERBEST DOKU TRANSFERİ: OLGU SUNUMU

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Dear Editor;

Myasthenia gravis (MG) is an autoimmune disease due to antibodies developed against postsynaptic nicotinic acetylcholine receptors.¹ The disease is characterized by generalized or localized muscle weakness aggravated by fatigue. MG is an important disease for anesthesia management. There are no reports in the literature describing perioperative anesthetic management of microsurgical tissue transfer in a patient with MG.

Sixty-nine-years-old female patient with MG was referred to our clinic with a right pre-auricular lesion (9x4 cm) present for 10 years. The patient's tumor was diagnosed as squamous cell carcinoma by incisional biopsy and MRI showed parotid gland invasion. A clinical history revealed that the patient was diagnosed with MG 4 years ago. Her neurologic status was under control with pyridostigmine (3x60 mg, daily).

The patient was scheduled for tumor excision with superficial parotidectomy and right supraomohyoid neck dissection under general anesthesia. After operation, pathologic assessment revealed tumor continuity on the zygomatic bone and deep soft tissues. The zygomatic bone excision with head of the condyle with joint capsule and total parotidectomy was performed in the second surgery 20 days later. Free tissue transfer with vertical rectus abdominis muscle-skin flap was used to obliterate the dead space (Figure 1).

She received medical therapy for the myasthenia preoperatively on the day of surgery. No other premedication was administered. For induction of anesthesia 100 mcg of fentanyl (1.5 mcg/kg), 40 mg of lidocain and 60 mg of propofol (1 mg/kg) was used. The patient was intubated without difficulty. There was no need for muscle relaxation. Anesthesia was maintained with inhalation 1.0-1.5% sevoflurane in air-oxygen mixture



Figure 1. Preoperative and postoperative appearance of the patient with myasthenia gravis after successful microsurgical flap transfer

and remifentanyl (50-150 mcg/kg/h) infusion. Intraoperative blood pressure and blood gas parameters were normal which are monitored with invasive radial artery catheterization. No deterioration was observed in hemodynamic situation per and postoperative period. After observation of adequate spontaneous breathing, patient was extubated uneventfully. No myasthenia crisis or respiratory failure was observed during the postoperative period.

MG is one of the most challenging neurological diseases for anesthesia due to unpredictable susceptibility to analgesia and muscle relaxants.² Microsurgical tissue transfers require special attention in MG patients due to long operation time and sensitivity of flap tissue to ischemia. None of anesthetic methods is proven to be superior than others in myasthenia gravis. Short-acting intravenous anesthetic agent propofol can easily be used because it has no significant effect on neuromuscular transmission. Myasthenic patients' responses to inhaled anesthetic agents are variable. Sevoflurane's low resolution in the muscles gives an advantage of rapid elimination, and it has a protective effect for endothelial cells against ischemia reperfusion injury.³ Nitrous oxide also can be used seamlessly with myasthenia gravis. Although they are not preferred because of the risk of central respiratory depression, opioids at thera-

peutic concentrations does not affect neuromuscular transmission. Short-acting (as Remifentanyl) agents are more advantageous in this respect.

For Reconstructive surgeons should not approach to the patient with severe concomitant disease. If the disease is stabile, any reconstruction method can be applied. Main idea of this letter is to emphasize that free flap surgery can be done in patients with MG without applying any special preparation or method.

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