Revascularized tissue transfer – a palliative measure for the treatment of ulcerating malignant meningiomas

Verheggen R.1, Ludwig H. C.1, Hönig J. F.2, Merten H. A.2
1Klinik für Neurochirurgie, 2Klinik für Orale u Maxillofaciale Chirurgie, Universität Goettingen, Robert-Koch-Str. 40; 37075 Göttingen

Purpose: We investigate the outcome of patients with malignant meningiomas sustaining revascularized tissue transfer for the repair of complex skull and skin defects.

Method: Due to an aggressive and infiltrative tumour growth into skin, skull and intracranially, a complex reconstruction of skin and skull defects using a revascularized flap was necessary in three patients with malignant meningiomas. After radical excision of the tumour-affected skin, a revascularized free rectus abdominis muscle flap accomplished the defect repair. Two patients had an extensive intracranial tumour spread, so that this measure was performed for palliative reasons. Healing was uneventful in all patients. A safe soft tissue closure of the intracranial and intradural space was achieved in all patients. The cosmetic and functional results were acceptable both at the donor and at the recipient site.

Results: A revascularized rectus abdominis flap is advantageous due to sufficient vessel diameter and strong vascular pedicle facilitating the anastomosis to the facial artery and vein. The mobility of the donor site defect enables a sufficient wound closure. The survival time of the patients with palliative treatment amounted to 4 and 6 months.

Conclusions: This method is advantageous in spite of inherent risks like flap loss or donor site problems. Despite this time-consuming surgical procedure, the reconstruction of skin and skull defects by revascularized tissue transfer seems to be justified, even as a palliative measure.