PREFABRICATED FLAPS IN SURGICAL TREATMENT OF TOTAL AND SUBTOTAL BURN SCARS (P194)

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Introduction: Various reconstructive technique such as skin grafts, flaps plasty, tissue expansion are used in the treatment of total burn scars in different areas of the human body. However free skin grafts are often contracted, have small size, and during skin expansion partial and full necrosis may occur.

The aim of this study was to show the possibility to use prefabricated vascularized skin flaps using vascular carriers while tissue expansion.

Methods: Axial blood vessels from scar-affected area were used for new flap formation. Separated vessels with fascia were transposed into preliminary formed pocket under intact skin nearby defect. Tissue expander was also implanted to the pocket. After necessary augmentation was reached tissues had been transposed for defect removal.

6 patients have undergone surgical treatment using prefabricated flaps. Facial defects (3) were closed with flaps from anterolateral surface of neck with inclusion of superficial temporal artery and fascia. Lateral arm flap using radial collateral and radial recurrent arteries was formed for plasty of elbow contractures (1). Saphenous flap with inclusion of saphenous artery was used for knee contracture correction (1). Lateral leg flap using perforators of peroneal artery above latera l malleolus was formed for treatment of ankle deformations (1).

Results: Full engraftment of flaps was observed in 4 cases. In 2 cases partial necrosis of distal parts of flaps failure occurred.

Conclusions: Preliminary revascularization of flaps using vascular carriers and additional expansion allows to reproduce extra resources of tissues for reconstructive surgical treatment of total and subtotal burn scars.