

with the orthotopic characteristics of an allogenic bone would be a successful alternative for the reconstructive surgery of the skeletal system.

Aim of the study. To determinate the optimal bone segment for allotransplantation and his sources of vascularization, on the femur in the rabbit model for tissue engineering.

Materials and methods. The study of the vascularization of the femoral bone was performed on laboratory animals (rabbits). After euthanasia and the femoral bone segment harvesting with a soft tissue without destroying the vascularization. In the abdominal aorta was injected contrast material, with the subsequent preparation of the arterial vessels. Followed by anatomical study, radiography, histology, microangiography of this vascularized bone segment. Thus we determined the vascularised bone segment which could be used as one graft for further conservation.

Results. The optimal segment for vascularized allografting (the rabbit model) was the upper third of the femur with the lateral circumflex femoral artery.

Conclusions. The success after bone vascularized allografting is ensured by keeping the circulation on arteria nutricia and microcirculation of blood. The vascular living allogeneic bone without immunosuppression would be a perfect alternative in the treatment of the massive bone defects.

Key words: vascularized bone grafts, bone allograft surgical revascularization, angiography

125. AMNIOTIC MEMBRANE IN THE TREATMENT OF DEFECTS IN DIABETIC PATIENTS

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Introduction. One of the most current and complicated aspects of plastic surgery is the treatment of defects in diabetic patients. The inefficiency of the conservative treatment and the the surgical interventions with the sacrifice of other healthy tissues requires the use of new methods of treatment

Aim of the study. Optimizing the local regeneration in patients with peripheral circulatory disorders using biological materials obtained through tissue engineering

Materials and methods. We initiated a study in a group of 5 patients with peripheral circulatory disorders with chronic non-healing wounds (> 30 day duration). The patients were selected to evaluate the performance, safety and handling properties of dehydrated human amnion / chorion membrane allograft. All five patients received only one application of dehydrated human amniotic membrane and there were no adverse effects.

Results. Was obtained optimization of local regeneration in patients with peripheral circulatory disorders by tissue engineering methods

Conclusions. The research in this direction will establish the perfect combination of support material for cells and growth factors, for a faster and qualitative epithelialization, thus facilitating epithelialization of ulcers and wounds in patients with circulatory disorders

Key words: diabetes, wounds, tissue engineering