

## HISTOGENESIS STAGES OF OSTEOGENIC GRAFT IN THE CULTURE MEDIUM AND IN THE RECIPIENT BED

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The article presents the stages of osteogenic differentiation of chondrogenic graft in the culture medium and in the recipient bed (defect of bone tissue). In the culture medium, cell and matrix transformations, and formation of vascular cavities with an endothelial lining and of matrix vesicles in osteoblasts (first stage of mineralization) take place in the chondrograft. Gene expression and detection of chondrogenic type proteins are replaced by expression of genes and detection of proteins of osteogenic stage of differentiation. Further stages of bone tissue histogenesis occur in the recipient bed. Humoral regulation factors and plastic substance enters through the formed anastomosis of the vessels of osteodysplastica and recipient, from which factors of humoral regulation and plastic substances are supplied, on the basis of which the formation of an organ-specific regenerate is completed with full integration into the recipient's organism. The study results are the basis for further use of the osteogenic graft in clinical practice.

**Keywords:** osteograft, chondrograft, gene expression, calcification, matrix vesicles, integration, osteogenesis, regeneration