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CELLULAR-MOLECULAR ASPECTS OF INFLAMMATION, ANGIOGENESIS AND OSTEOGENESIS. A SHORT REVIEW

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The review discusses the complex, rather controversial cooperation of immunocompetent, bone and stem cells in the implementation of inflammation, angiogenesis and osteogenesis. The general significance of post-traumatic hematoma and inflammation in the reparative regeneration of bone tissue is presented. A relationship has been shown between inflammation and angiogenesis during the healing of bone damage. The role of immune cells (mainly T-lymphocytes and macrophages) and humoral factors (mainly cytokines and chemokines) in neoangiogenesis and bone regeneration, which largely determine the outcome of bone remodeling (successful, delayed or unsuccessful), has been determined.

Keywords: bone tissue, microvasculature, damage, hematoma, immunocompetent cells, cytokines and chemokines, regeneration