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The Procedure of Bone Cells Obtaining, Culture and Identification

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Isolation of bone cells represent a major importance in laboratory research and clinical practice. This work was conducted on six 6 ± 1.5 months Wistar rats from which the diaphysis of long tubular bones were harvested, followed by mechanical removal of all tissues excepting the bone tissue with further chopping. The chopped bone tissue (ChBT) was processed by two ways, each of them was followed by two methods of bone cells isolation and culture: through explant and enzymatic digestion. Obtaining of bone cells through the explant method in both ways, was more effective compared to enzymatic digestion. Also, there was no significant difference between the amounts of cells obtained between both bone processing protocols. The obtained bone cells were identified following morphological changes and Alizarin red staining after cells culture in over-confluence.