



Viability of osteocytes in bone autografts harvested for dental implantology

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Bone autograft remains a very useful and popular way for filling bone defects. In maxillofacial surgery or implantology, it is used to increase the volume of the maxilla or mandible before placing dental implants. Because there is a noticeable delay between harvesting the graft and its insertion in the receiver site, we evaluated the morphologic changes at the light and transmission electron microscopy levels. Five patients having an autograft (bone harvested from the chin) were enrolled in the study. A small fragment of the graft was immediately fixed after harvesting and a second one was similarly processed at the end of the grafting period when bone has been stored at room temperature for a 20 min \pm 33 s period in saline. A net increase in the number of osteocyte lacunae filled with cellular debris was observed (+41.5%). However no cytologic alteration could be observed in the remaining osteocytes. The viability of these cells is known to contribute to the success of autograft in association with other less well-identified factors.

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