

PROXIMAL TIBIA VERSUS ILIAC CREST BONE GRAFTS IN ALVEOLAR CLEFT RECONSTRUCTION

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ABSTRACT

Bone grafting of the alveolar cleft is an essential step in the reconstruction of the orofacial cleft deficiency. The standard in all bone grafting today remains autogenous bone despite the efforts concerned to gain comparable outcomes with allogenic bone, xenogenic bone, bone substitutes and alloplasts. The results related to function; form and adaptability remain superior with autogenous bone. Reconstruction of the alveolar clefts is a well documented surgical procedure in which autogenous bone graft restores continuity of the dental arch, closes oronasal fistulae, provides sufficient quantity and quality of bone to allow eruption of permanent teeth adjacent to the cleft and provides support for the lateral ala of the nose, alar base and the nostril floor to improve nasal aesthetics and speech. Furthermore, it supports orthodontic movement of teeth in the cleft. Ten patients with unilateral or bilateral alveolar clefts were included in this study. Reconstruction was performed using tibial bone graft in 5 patients (group I) and the other 5 patients were treated using iliac crest bone. Graft (group II). The marginal bone level achieved was satisfactory in all cases evaluated by occlusal radiographs, the radiographs also demonstrated that the bone grafts were totally integrated after 6 months in all cases. It was found that the proximal tibia offers a reliable site for harvest of sufficient quantities of good quality cancellous bone with the advantages of less morbidity, reduced hospitalization time, reduced operating time and that it gave a post-surgical scar which was smaller and less apparent than that of the surgical intervention to harvest corticocancellous bone from the lateral iliac crest.

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