ABSTRACT

Cleft lip and palate is a most common congenital disease that is caused by interaction between genetics and environment factor, thus represent anatomical and functional deformity of dentomaxillofacial. Early and hollistic multidiplinary treatment are needed, such as surgical and orthodontic treatment. Primary correction of cleft lip is not enough to make appropriate function and aesthetics, there are still oronasal fistula, lack of periodontal bone support, nasal alar base support, vertical growth, tendency of collapse maxilla, anterior maxillary crossbite, and many dental anomalies. From orthodontic viewpoint, secondary alveolar bone grafting has important benefit that the newly grafted bone acts as the alveolar bone, allowing the spontaneous migration of the adjacent canine towards the alveolar ridge. Bone grafting is done depend on growth development of patients. Grafting that is held between the ages of 9 to 11, before the eruption of the canine when root is 1/4 to 2/3 formed, does not have much effect on midface growth. Secondary alveolar bone grafting is performed in order to provide adequate periodontal support for eruption and preservation of the teeth adjacent to the cleft. The anterior iliac crest as autogenous bone graft is the most common donor site used as a gold standard, which can be mobilized in adequate amount and has high particulate cancellous bone graft. It can be concluded that secondary alveolar bone grafting can provide new bone support that has functional respond to eruption, migration, and normal movement of teeth.

Key words : cleft lip and palate, secondary alveolar bone grafting, autogenous bone graft