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## Closure of the Alveolar Cleft by Bone Segment Transport using Intraoral Tooth Borne Custom Made Distraction Device

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**I**ntroduction: The closure of a wide alveolar cleft and fistula in cleft patients are challenging for both orthodontists and oral surgeons. Many techniques have been described to repair the alveolar cleft such as periosteal graft, gingivoperiosteoplasty, bone graft, and orthognathic surgery. Bone segment transport using tooth borne distraction devices was used for closure of the alveolar cleft and provide successful results as compared with others techniques for alveolar cleft repair.



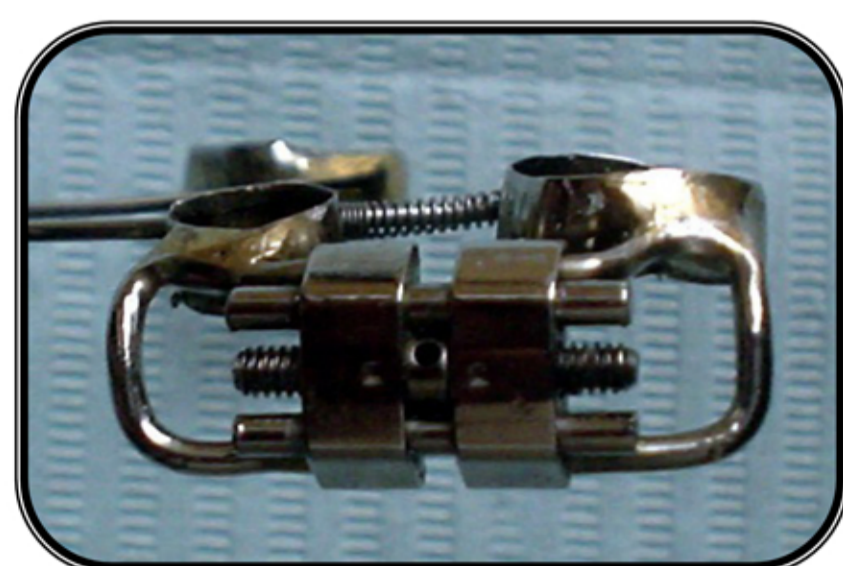
**R**esults: The transported segments were positioned 1-4 mm superior to the occlusal plane; the direction of the distractor was initially parallel to the occlusal plane. Once the transported segment came in contact with the alveolar bone, intervening fibrous tissue at the docking site was removed and docking site surgery was done.

**O**bjective : The study Evaluate the Bone Segment Transport using Intraoral Tooth Borne Custom Made Distraction Device for alveolar cleft closure.



**P**atients & Methods: Ten patients with alveolar cleft treated by anterior transportation of the posterior dento-alveolar segment using intra-oral tooth borne custom made distractor. Clinical evaluations include intraoral photographs, Vitality test, Cast analysis, Tooth mobility, and periodontal probing depths.

Radiographic evaluations include occlusal film, Orthopantomogram, and C.T and 3D C.T.



The distractor (hyrax screw, bands, palatal arch wire)



**C**onclusion: Maxillary alveolar bone transport offers an alternative in the late treatment of the alveolar cleft. The morbidity associated with grafting large alveolar clefts can be reduced by making the cleft spaces smaller and more manageable.

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