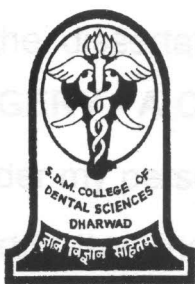
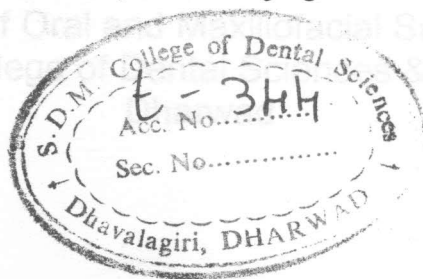


# **“BONE GRAFTS IN MAXILLOFACIAL SURGERY - A CRITICAL APPRAISAL”**



Dissertation Submitted to the Rajiv Gandhi University of Health Sciences,  
Bangalore, in Partial Fulfilment of the Requirements  
for the Degree of Master of Dental Surgery,  
in the Specialty of Oral & Maxillofacial Surgery.



March 2000

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With the advent of improved surgical and aseptic techniques the use of bone grafts in maxillofacial region has become routine. Bone grafting has been used in reconstructive surgery for over 100 years. Use of osseous, autologous grafts in facial surgery has started from the time of World War II. Various types of grafts have been used to restore mandibular function and normalise facial esthetics when there is disruption of mandibular continuity secondary to trauma, infection or tumour resection. Autogenous bone graft was first used for reconstruction of the mandible in 1900 by Cohen and Schultz. Traditionally, autogenous and homogenous corticocancellous bone grafts have been inlaid / onlaid to enhance stability and improve function with reconstructive procedures.

Autogenous grafts often used in the reconstruction of the bones of the facial skeleton have been the rib, ilium, clavicle and calvarium. The ilium is the most commonly used donor site. It offers a rich repository of medulla as well as thick cortical bone and lends itself to esthetic and functional reconstruction. However donor site morbidity can be significant when harvesting iliac bone, with pain, blood loss, scarring and possible growth disturbances in children being among the most important local sequelae.

The rib, by comparison, has a dense, thick cortical layer and has the added advantage of providing a length of bone that is readily adaptable but it requires a more vascular bed and is more prone to failure.