

modulus of elasticity was found to prevent the stress from transmitting to the bone graft ⁽²⁴⁾.

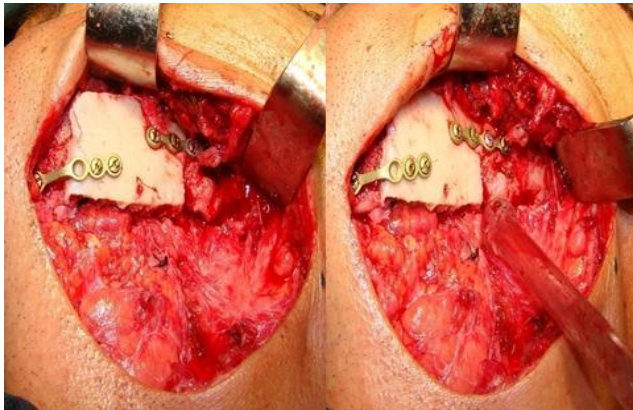


Fig. 9. Iliac crest bone graft inserted and fixed to the mandible immediately after segmental resection of the mandible due to ameloblastoma

The use of transosseous wire in compact bone graft gives a secure fixation when applied at each end by two holes for the recipient site and the bone graft. The wires passed through the holes and twisted tightly as conventional type and figure of eight wire but it was not regarded as a type of rigid fixation.

Ralf et al. suggests that miniplates fixation can be regarded as the method of choice for fixation of bone graft ⁽²⁵⁾.

The recipient site needs not to put drain because the postoperative hematoma and seroma can be prohibited by arresting of all the bleeders, closure of the wound in layers and dressing with a pressure pack.

The most significant cause of early donor site morbidity was local pain, lasting up to 4 weeks postoperatively. In a study by Forrest (1992), seen in 27% and required an average of 5 days of parenteral narcotic analgesics ⁽²⁶⁾. In our study postoperative pain was seen in 5% of cases and required parenteral anti-inflammatory analgesics for 4 days then starting with oral analgesics after that.

Anatomically, bone harvest from anterior iliac crest via lateral approach would be expected to have more postoperative pain and gait disturbance ⁽²⁷⁻³⁰⁾.

However, the results of our study support Tagapongsa study in 1994 in that there is no difference in medial and lateral approaches ⁽³¹⁾. Because the cancellous bone reservoir is located in the iliac crest area at the anterior 1/3 between the anterior iliac spine and tubercle, reflection of tensor fascia, gluteus medius, and gluteus minimus muscle in the lateral approach and iliacus muscle in the medial approach is inevitable. A large hematoma or excessive trauma can cause psoas muscle inflammation or dysfunction leading to postoperative pain and gait disturbance from anterior iliac bone harvest, injury to these muscles and bleeding from the cancellous marrow must be reduced to minimum ⁽³²⁾.

When mucous membrane was intact or only slightly damaged, grafting was practical proposition, but quite contraindicated when the mucosal laceration were ragged or difficult to close. From reviewing the cases in our study, we had one case of failure due to penetration of mucous membrane by the bone graft in maxilla. We believe that watertight suture not under tension of the mucosal incision to prevent leakage of saliva with irrigation of the mouth by antiseptic wash will help to prevent infection from oral microorganisms ^(29,30).

Introduction of nasogastric feeding tube may be a protective appliance for a period of time until complete healing of the mucosa observed. Low grade inflammation due to allergic reaction may be associated with the use of Dacron-urethane osteomesh with collection of serous fluid. This induces low-grade infection, which is a potential predisposing factor for bone resorption ended with infection and failure. We observe it in one case ^(31,32).

We concluded from our study that the preparation of the recipient site prior to bone grafting procedure is important for successful results, delayed reconstruction of facial bones after trauma is indicated because most wounds are contaminated with loss of tissues, immediate reconstruction of the mandible after resection of benign tumors with low recurrent rates is important to prevent collapse of the segments,