

the mandible, Dacron-urethane mesh was used to carry the particular bone graft. In the case of defects in the floor of the orbit, zygoma, alveolar area, maxilla and the body of the mandible, a block of corticocancellous bone graft was used to repair the defect. There was no difference between the two types of bone graft with reference to their failure, but surgeons must adhere strictly to adequate preoperative preparation and skillful technique including generous graft contact and rigid stabilization. The graft bed must be vascular and free from infection. These should be observed in any procedure of bone grafting^(20,21).

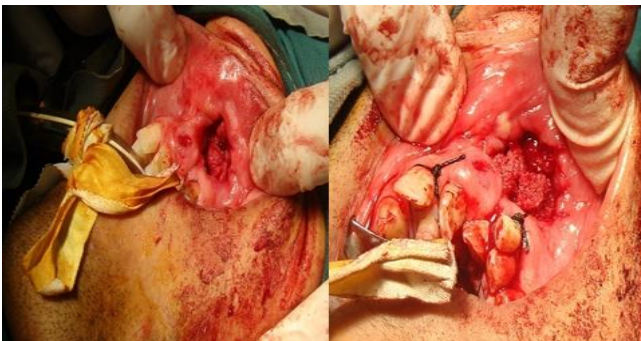


Fig. 6. Recipient site

Upon reviewing of our cases and being compared with those of other surgeons, we agree with Schwartz (1984) who stated that There is no all-purpose type of bone graft⁽²²⁾, and proper technical procedure with healthy non-scarred bed and rigid fixation will make the bone graft appear better than cancellous chip of bone because it is more rigid and helps in fixation. The mandibular osteomesh may stimulate a low-grade inflammation with seroma formation. The use of cancellous bone needs more care about fixation and stabilization which are not provided by its tray alone.

In all our cases treated by bone grafts, transosseous wires, screws and miniplates introduced to hold the corticocancellous bone graft to the bone of recipient site as well as the mandibular tray used to carry the spongy bone graft of the mandible. For immobilization mainly for mandibular bone graft, we used IMF. We think that cases of rigid internal fixation are very

good and donot need IMF for the mandibular reconstruction. The survival and success of the bone graft dependson the rapidity of the revascularization and the 1st phase of bone healing process can only take place if the capillary growth into the transplant finds absolute stable condition; therefore, secure internal fixation of the graft is mandatory⁽²³⁾.



Fig. 7. Zygomatic bone defects (contour deficient due to old trauma)

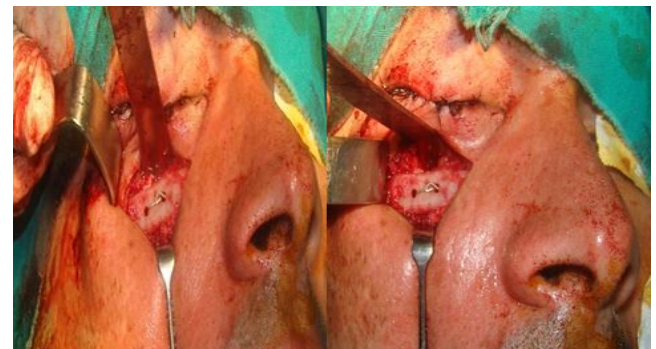


Fig.8. Preparation and fixation of the iliac crest bone graft to the zygomatic defect by stainless steel wire

Some surgeons were more conservative⁽²⁴⁾, in that they maintain their internal rigid fixation with reconstruction plates, lay screws, as well as miniplates for 3-4 months and then remove it to expose the bone transplant to functional load. Comparable with our cases where osteomesh tray was used, other surgeons showed low modulus of elasticity lesser than that of cortical bone. Permitting the functional stress which may be an important factor in extensive graft resorption when titanium tray or bone plates are used, the extensive rigid fixation with high