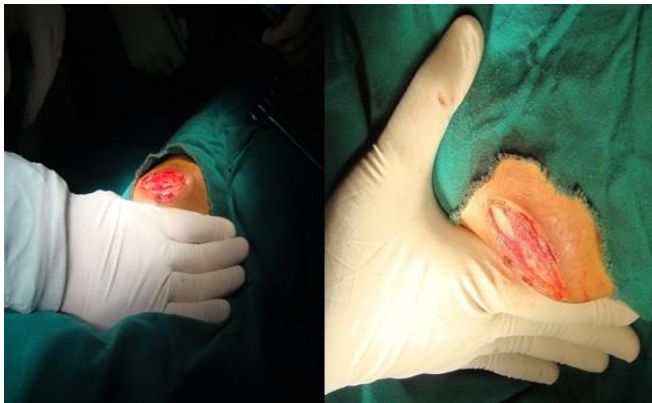


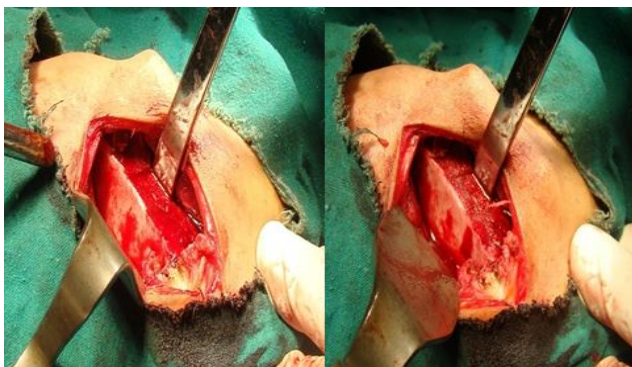
## Discussion

The bone formation within the graft was more abundant when an iliac graft was used, probably because of better survival of osteogenic cells and more complete vascularization within the graft<sup>(11-13)</sup>.



**Fig. 3. Incision of the skin of the donor site**

In reviewing the traumatic cases operated for bone graft, we found that the most etiological factors for the bony defects were high speed vehicles. This result is not similar to the study of Poirit (1953) which showed that 75% of maxillofacial injuries of the 2<sup>nd</sup> war were due to the fragmentation missiles, which in our study were the 2<sup>nd</sup> most common cause of facial defects<sup>(14)</sup>. Olsen and colleagues 1982 also reported that the most common cause of the defect was due to vehicle accidents<sup>(15)</sup>.



**Fig. 4. Bone graft was taken as one block**

Most surgeons who carried out bone grafting for mandible as immediate reconstitution to restore the defect caused by tumor surgery and not by a

traumatic injuries. The chance for successful bone graft is higher if there is an adequate time elapsed between the time of injury and the time of surgical procedure in cases of traumatic injuries; this is due to risk of infection and sequestration of fragmented bone pieces as consequence to trauma<sup>(16)</sup>. So, the policy of our treatment in cases of traumatic injuries was to wait until all signs of infection disappeared, but certain steps of preparation were done to make the recipient site ready for grafting. While for odontogenic tumors we treated them immediately after removal of the tumor from the mandible.



**Fig. 5. Cortical and cancellous bone graft taken from the anterior iliac crest**

Komisar (1985) concluded that delayed reconstruction was superior due to absence of infection and the immediate reconstruction of mandible has more chance to fail, while the delayed repair of traumatic injuries has better results<sup>(17)</sup>. Lundgren (1999), favor the use of a delayed approach by free autogenous bone graft<sup>(18)</sup>.

Immediate mandibular reconstruction can be performed safely and expeditiously in nearly all healthy patients undergoing segmental mandibulectomy<sup>(19)</sup>.

In our study, the cases were treated either by corticocancellous block bone graft or cancellous chips bone graft depending on the site and the length of the defect and the bed of recipient site (Fig.3-5). When the defect occurs in the mandible and extended to involve the body of