

Masquelet Technique in Treating Bone Defect in Post Traumatic Ulna Fracture

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INTRODUCTION:

Traumatic fracture causing segmental bone defect has morbidity complication. Masquelet technique approach offers a delayed but effective outcome, both functional and biological result.

REPORT:

A 23 years old gentleman had a motor vehicle accident and sustained open comminuted fracture of right radius and ulna. He underwent wound debridement and intramedullary wire fixation of right radius and ulna as an emergency operation. 10 days later, he underwent plating of right radius and gentacoil insertion of right ulna. The later was deemed as temporary management while awaiting for wound and soft tissue healing.



Figure 1: Pre-Masquelet

The fractured ulna manifested with 2 cm bone defect. A definitive operation of masquelet technique was planned to facilitate bone union. Prior to it, possible infection condition is ruled out.

The 1st stage was executed 2 months after the trauma, which we performed locking plate fixation and cement spacer insertion of right ulna.

2nd stage operation was done 11 weeks later. The cement spacer was removed while preserving the biomembrane, followed by insertion of autologous iliac bone graft and synthetic demineralized bone matrix.

4 week post operative follow up shows healed surgical wound. Plain radiograph shows bone bridging and incorporation of bone graft over bone defect.

75% consolidation of bone grafting area is observed on 8 weeks post operative follow up. 5 months post operatively, bone union is resulted with good functional outcome.

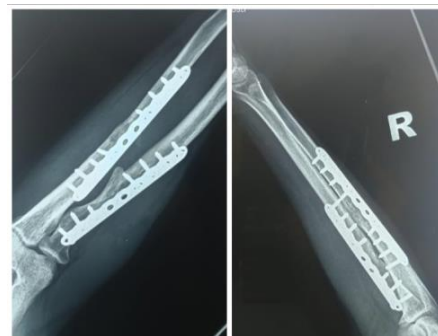


Figure 2: 5 months Post-Masquelet

CONCLUSION:

In non infected case, we observe that masquelet technique provides good bone grafting outcome, subsequently bone union.

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