

SAVING A FINGER WITH OSTEOMYELITIS USING THE INDUCED MEMBRANE TECHNIQUE: A CASE REPORT

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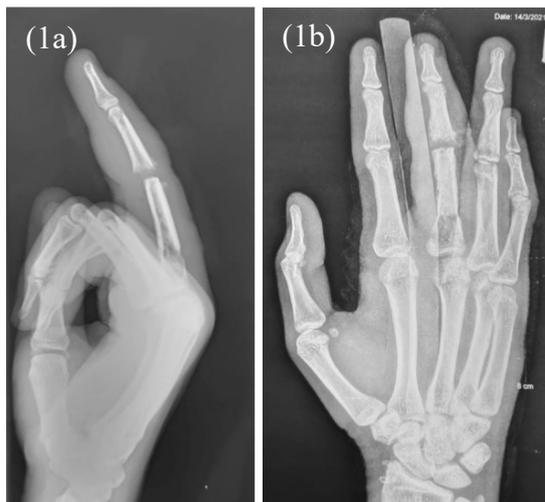
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INTRODUCTION:

Finger osteomyelitis can be a devastating and challenging problem which often result in amputation. Fortunately, the induced membrane technique (Masquelet technique) which was recently introduced for surgical treatment of hand and wrist infection has become more popular.

REPORT:

17-year-old right-handed male was referred to our center for right middle finger proximal phalanx osteomyelitis. Initially, he sustained laceration wound over his right middle finger one month prior to presentation and subsequently self-medicated with store bought traditional ointment. He had persistant pus discharge over dorsum and volar aspect of right middle finger despite multiple debridement and intravenous antibiotics at another hospital. Xray shows destruction of the PIPJ with osteolysis and periosteal changes over the proximal phalanx of middle finger (Fig. 1).



Masquelet technique involves two stage, the first surgery/ initial stage involved radical debridement of the infected tissue and bone, placement of a cement spacer and external fixator. Intraoperatively, pus discharge from dorsal and volar aspect of right

middle finger wound. The proximal phalanx is devitalised with intramedullary pus and debris.



Second stage surgery involves external fixator and cement spacer removal. Cortico-cancellous iliac crest bone graft was harvested and fixed with Kirschner wires and cerclage wires. Primary arthrodesis of the proximal interphalangeal joint was performed in view of severe destruction of the joint. Patient was then given intravenous Cefuroxime for a week before discharge and then oralise for 5 weeks. Intraoperative cultures grew bacillus species. 6 months post operatively, patient Xray shows sign of bony union (Fig. 2) and well healed scar over his right middle finger dorsally and volarly, he no longer have any pain of his right middle finger. The metacarpophalangeal joint and distal interphalangeal joint active range of motion is 0-90 degrees with fixed flexion of the PIPJ at 45 degrees.

CONCLUSION:

The induced membrane technique is a simple and useful technique in treating osteomyelitis in the hand with massive diaphyseal bone defect. It makes finger preserving surgery feasible in these situations with acceptable hand function and outcome.