

# Monoplanar Rigid External Fixator: Treatment Option Of Osteogenesis Associated Infection And Outcome In District Hospital:A Case Report

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## INTRODUCTION:

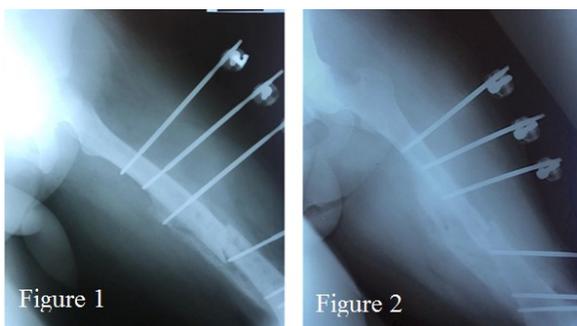
Osteosynthesis Associated Infection (OAI) remained a treatment challenge. Ilizarov external fixator has been traditionally used for treatment of OAI however facing certain limitations as described. A rigid simple uniplanar external fixator can be used and produced an outcome as good as Ilizarov fixator.

## CASE REPORT:

13yo Malay girl with underlying eczema, sustained closed simple transverse fracture midshaft left femur and closed spiral fracture distal third right humerus. The femur fracture was treated with internal extramedullary fixation (Broad DCP 10 holes) while the humerus fracture was treated conservatively. Unfortunately, patient was complicated with OAI. Multiple debridement and removal of implant was done. Simple and rigid external fixation was applied over right femur(Figure 1). Long term antibiotic was given.

## RESULTS:

Patient is a 100kg obese girl with a bulky thigh. Inflammatory markers are coming down. Regular special dressing was done during the period with subsequent delayed secondary suturing. Radiograph shown callus formation. Wound healed and fracture united in subsequent follow up.( Figure 2)



**Figure 1: Radiograph after put with external fixator**

**Figure 2: Latest Radiograph left femur after 6 month external fixators**

## DISCUSSIONS:

Based on the case history, we compare between simple rigid external fixator and Ilizarov external fixator in Table 1.

Table 1

| Factors contributing decision | Simple Rigid External Fixator | Ilizarov external fixator |
|-------------------------------|-------------------------------|---------------------------|
| Pinsite infection risk        | Low                           | High                      |
| Time consume for op           | Short                         | Long                      |
| I/I radiation risk            | Low                           | High                      |
| Surgeon skill                 | Low demand                    | High demand               |
| Dressing                      | Easy                          | Hard                      |
| Cost                          | Cheap                         | Expensive                 |

## CONCLUSION:

Simple external fixator in a rigid construct can be used for treatment of chronic OAI with an outcome as good as Ilizarov external fixator.

## REFERENCES:

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