

# **One Bone Forearm Reconstruction - A Simple Solution To Complex Problems**

Dr Devendra A, Dr Dheenadayalan J, **Dr Rajasekaran S**  
Ganga Medical Centre & Hospitals Pvt. Ltd , Coimbatore, India

## **INTRODUCTION**

Treatment of chronic osteomyelitis and infective non-union of forearm are complex problem for the treating orthopaedic surgeon. In children, chronic osteomyelitis is usually a sequelae of untreated acute haematogenous osteomyelitis. In adults, chronic osteomyelitis can be post traumatic following open fractures or postoperative following open reduction and internal fixation of forearm fractures. One bone forearm reconstruction is simple solution to this complex problem.

## **METHODOLOGY**

We have retrospectively analysed, 13 patients treated with one bone forearm reconstruction for bone gap of greater than 4 cm following debridement of chronic osteomyelitis and infective non-union of both bones forearm from October 2007 to April 2014. Mean age of the patients were 29.13 years (range 6 – 62). Male patients were 5 and female patients were 8. Dominant hand was involved in 4 patients. One patient had chronic osteomyelitis of ulna with segmental bone loss, 10 patients presented with postoperative infection following open reduction and internal fixation of both bones forearm, 1 patient presented with infection after replantation following traumatic amputation of both bones forearm and 1 patient presented with infective non-union.

## **RESULTS**

All patients were assessed clinical and radiologically during follow up. Infection was controlled in all patients. Functional outcome was assessed based on Peterson et al scoring system. Average time to union in united patients was 5.6 months (Range 3 – 8 months). In our study, Infection was controlled in all patients. Non-union was reported in two patients at wrist arthrodesis site and vascularised fibula radius junction. No active intervention was done as they were asymptomatic.

## **CONCLUSION**

Reconstruction of forearm following an infective non-union is a great challenge to the treating orthopaedic surgeon. One bone forearm reconstruction forms a simple solution to this complex problem as it provides a stable fixation and good functional outcome to the patient.