## **ABSTRACT**

#### OUTCOME ANALYSIS OF OPEN FRACTURES OF THE ANKLE JOINT

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### INTRODUCTION

Fractures of the ankle joint are the second most common lower limb fractures after the hip fractures and they represent 10 % of all fractures with an incidence of around 137 per 1,00,000 persons per year .Around 2% of ankle fractures are open fractures . Open injuries around the ankle joint cause destruction of not only the bony architecture but also often the ligamentous and soft tissue components including skin.

#### AIM OF THE STUDY

To study the functional and radiological outcome of open ankle fractures treated by various treatment modalities.

#### MATERIALS AND METHODS

This is a prospective and retrospective study of open ankle fractures conducted at INSTITUTE OF ORTHOPEDICS AND TRAUMATOLOGY, RGGGH, MADRAS MEDICAL COLLEGE, CHENNAI -3 between mar 2016 to Aug 2016. Outcome of 23 open ankle fractures analysed functionally and radiologically.

#### RESULTS

The most common cause in our study is road traffic accidents(69%), Majority of the patients presents as Gr III A open fractures ( gustilo – Anderson ) 43.5 % followed by Gr III B open fractures ( 30.4%) and bi malleolar fractures are common (60.9%) Based on the observations of the Lauge – Hansen and AO/OTA classifications , supination external rotation type 4 ( SER 4 ) and type 44B2 ( AO ) are more prevalent .

# **CONCLUSION**

Open reduction and internal fixation in Gr I and GrII open ankle fractures reults in excellent patient outcome. Post traumatic osteoarthritis of the ankle (PTOA) , the most common indication for ankle arthrodesis occurs in significant number in our study(around 39.1%) , contribute significantly to the poor outcome.

KEY WORDS: open ankle fractures, OMAS score