

Closed Metaphyseal Distal Radial Fractures in Children

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INTRODUCTION

Metaphyseal radial fractures constitute a significant proportion of fractures in children aged 0-16 years and are therefore encountered quite commonly within an orthopaedic service.

METHODOLOGY

We reviewed a consecutive series of distal radial fractures presenting to our unit between 2002 and 2007. A complete patient cohort was obtained from the Hospital In-Patient Enquiry (HIPE) database, theatre records and the Radiology Inquiry System (RIS) search. Distal epiphyseal fractures and open fractures were excluded. We reviewed individual medical records to obtain demographic and clinical data including age, sex, length of stay, and the need for re-manipulation or re-manipulation with percutaneous or open fixation.

RESULTS

There were 138 metaphyseal distal radial fractures treated in the period 2002-2007. The male to female ratio was 2.3:1 (96 males, 42 females). The mean length of stay was 1.4 days.

Of the 138 fractures, 124 (89.9%) were treated with manipulation under anaesthetic (MUA) only, and 9 (6.5%) were treated with manipulation and K-wiring. Of those treated primarily with manipulation only, 8 (6.4%) required readmission for re-manipulation, while 2 (1.6%) required readmission for manipulation and percutaneous fixation with K-wires.

CONCLUSIONS

Metaphyseal distal radial fractures are a common occurrence in the young population. The data observed indicate that the need for a repeat procedure is low (9%) with primary MUA for their management. This eludes the possible complications of K-wiring (e.g. infection, GA), and provides satisfactory results. Therefore, closed distal radial fractures, excluding distal epiphyseal ones, in children aged 0 to 16 years should primarily be managed by MUA and casting, and the need for primary K-wire fixation is circumvented.