

Age And Gender Distribution Of Common Fractures In Children.

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INTRODUCTION:

Fracture is a severe and common form of trauma in children. We plan this study to investigate the demographic pattern of few common fracture sites to assist in planning of preventive measures for the condition.

MATERIALS & METHODS:

Retrospective review of database of Paediatric Orthopaedic outpatient clinic from 2007 to 2017 (10 years) based on fracture sites recorded using AO Paediatric Orthopaedic classification. Only fractures of limbs and limb girdles, for children age younger than 13, were included in this study.

RESULTS AND DISCUSSION:

A total of 1090 fractures in 1084 patients were recorded over this period. The most common fractures was supracondylar fractures (AO 13), followed by distal radius fracture (AO 23) and forearm fractures (AO 22). Overall, upper limbs fractures has 3.7 times higher incidence than lower limbs fractures, consistent with the result from a 10-year case review in Western Australia.[1] In all top 3 commonest fracture site, males had an overall higher incidence than female at different age. For supracondylar fractures, most fractures occurred from age 2 to 7 and declined after that, while for distal radius fracture, incidence gradually increase with schooling age from 6 to 11 year-old. Forearm fractures gradually increase in boys after walking age until age of 11, but the rate remained static in girls.

CONCLUSION:

Most common fracture in children below 13 in Kuala Lumpur / Petaling Jaya area is supracondylar humerus fracture that peaked at early childhood age, followed by distal radius fracture in primary school age. Male predominance can be noted from very young age, but becoming more obvious with increasing age.

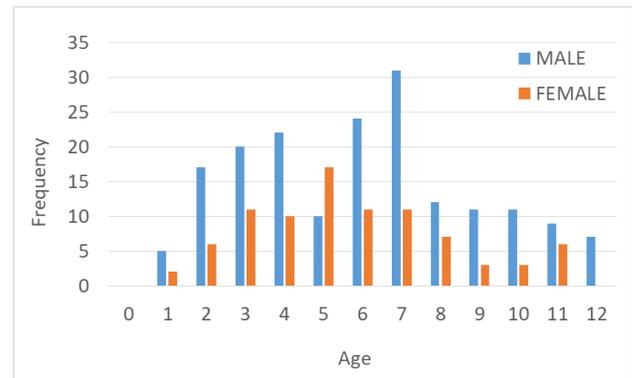


Figure 1. Frequency of AO 13 fracture at different age and gender.

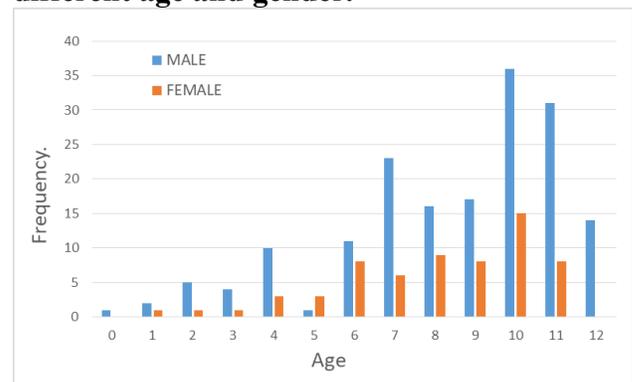


Figure 2. Frequency of AO-23 fracture at different age.

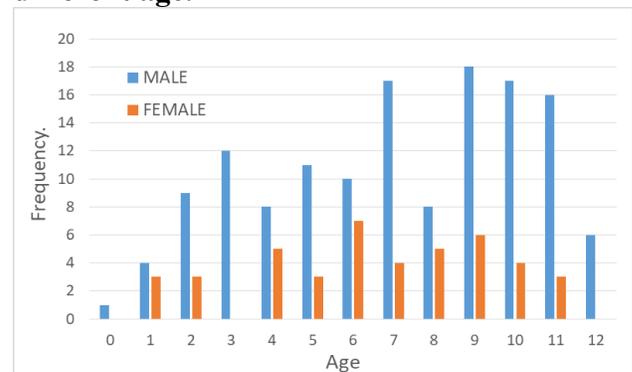


Figure 3. AO 22

REFERENCES:

1. Jenkins M., Nimphius S., Hart, N and et al. Appendicular fracture epidemiology of children and adolescents: a 10-year case review in Western Australia (2005 to 2015). Archives of Osteoporosis. 2018. 13:63.