



Correspondence

Re: Assessment of interpretation of paediatric skeletal radiographs in the emergency room



Sir — We read with interest the recently published study by Kargl *et al.*¹ We agree that the interpretation of skeletal radiographs in paediatric trauma can be challenging, emphasising the authors' conclusion that such imaging should be formally reported by an experienced clinical radiologist. This is particularly prudent given that, "... the initial interpretation of radiographs is often performed by physicians in training with lesser experience concerning the specifics of paediatric skeletal radiography".

The authors fail to discuss the number of missed fractures per site by age in those children <2 years, and more specifically, in those under the age of 1 year. Abusive fractures are more common in children aged <12 months than those aged >2 years² with the highest incidence seen in those under the age of 4 months.³ In the study by Kargl *et al.*, there were 14 interpretative errors in the <1 and 1-year age groups (<2 years), implying that there were 14 missed fractures in those aged <2 years. Moreover, there were a number of missed fractures that had a moderate specificity for physical child abuse depending on the age of the child: digital (fingers $n=35$, metacarpal $n=6$, toes $n=8$) and skull $n=4$.

Inflicted injury/suspected physical abuse must be ever present in the minds of physicians (emergency medicine, paediatric, orthopaedic) and radiologists when children are presented to the Emergency Department. Any fracture with an inappropriate history is suspicious. Radiography plays a vital role in identifying clinically occult acute and/or healing bony injury, raising the suspicion for physical abuse. In broad terms, there is often no harm arising from a missed fracture: indeed, this study reported no morbidity in those children whose definitive treatment was delayed by 1 day

resulting from the initial misdiagnosis; however, in cases of child abuse, an overnight stay in an abusive environment exposes the child to the risk of further, potentially fatal, injury.

There must be robust mechanisms in place to ensure that paediatric radiographs are formally reported in a timely manner by appropriately trained clinical radiologists. Furthermore, there should be increased vigilance and awareness of suspicious fracture patterns in children aged <2 years, and in particular, in those aged <4 months old. *Safeguarding children is everyone's responsibility.*

Conflicts of interest

The authors declare no conflict of interest.

References

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