

bone may be bilateral and multiple but there is usually other evidence of fracture or haematoma. This new bone is uneven and extends to the end of the metaphysis in some cases. In infection new bone will not affect multiple bones symmetrically. Physiological periostitis should be considered in suspected bone injury with periosteal reaction only in infants aged 1–6 months.³

Conclusion

These two children were initially incorrectly suspected of having been abused, the appearances of physiological periostitis being mistaken for a fracture until a radiograph on the opposite side showed identical appearances leading to the recognition of physiological periostitis (or periosteal new bone).

These two case reports highlight firstly, the importance of imaging the contralateral limb in this age group when accidental fracture or osteomyelitis is suspected in order to avoid unnecessary skeletal survey, and secondly, radiological findings must be interpreted in the context of clinical

findings so that the risk of serious errors including erroneous suspicion of child abuse are minimised.

Authors' affiliations

P de Silva, G Evans-Jones, A Wright, R Henderson, Paediatrics, Countess of Chester Hospital NHS Trust, Chester, UK

Correspondence to: Dr G Evans-Jones, Women's and Children's Directorate, The Long House, Countess of Chester Hospital NHS Trust, Countess of Chester Hospital Health Park, Liverpool Road, Chester CH2 1UL, UK; gareth.evans-jones@coch.nhs.uk

Accepted 27 May 2003

REFERENCES

- 1 **Keats TE**, Anderson MW. *Atlas of normal roentgen variants that may simulate disease*, 7th edn. Mosby, Inc., 2001:642.
- 2 **Shopfner CE**. Periosteal bone growth in normal infants: a preliminary report. *Am J Roentgenol Radium Ther Nucl Med* 1966;**97**:154–63.
- 3 **Rao P**, Carty H. Non-accidental injury: review of radiology. *Clin Radiol* 1999;**54**:11–24.

IMAGES IN PAEDIATRICS

Home oxygen therapy: beware of birthday cakes

The remains of the burnt oxygen nasal cannula belonged to a child with chronic lung disease on home oxygen therapy (HOT). He had always celebrated his birthdays with the usual cake and the appropriate number of candles. Admiring his fourth birthday cake, he lost balance and came too close to the candles. The nasal cannula went up in flames. His hair too. His older sister was cute enough to rip the cannula off his head. Physically, he only suffered from nasal second degree burns. His family feels guilty, even more so since everyone knew that oxygen was a combustive agent.

Only adult patients have been reported in the literature to have

suffered from HOT induced burns, which varied from small superficial facial lesions to lethal inhalation injuries.¹ Most of these incidents were caused by cigarette smoking. Young children, luckily, do not normally smoke. They are thus probably less at risk of oxygen induced burns.

When prescribing HOT to paediatric patients, physicians should however remember children's pleasures: birthday cakes and candles—and warn parents accordingly.

B Laubscher

Hôpital Pourtalès, Neuchâtel 2000, Switzerland; bernard.laubscher@ne.ch



Reference

- 1 **Chang TT**, Lipinski CA, Sherman HF. A hazard of home oxygen therapy. *J Burn Care Rehabil* 2001;**22**:71–4.