

of the Family Law Division of the High Court; the decision to deal with the complaint by means of a formal hearing would have been made by General Medical Council members or officers, unlikely to have included 'child advocates' and determined by an independent Fitness to Practice Panel of lay and medical members, also highly unlikely to have contained any such individuals.

CONFLICTS OF INTEREST

Harvey Marcovitch declares the following competing interest. From time to time he acts as chairman of UK General Medical Council Fitness to Practice Panels. He had no involvement with the case involving Dr Paterson. All views expressed are his own and in no way represent the views of the GMC.

References

1. Paterson CR. Temporary brittle bone disease: fractures in medical care. *Acta Paediatr* 2009; 98: 1935–8.
2. Bishop N, Sprigg A, Dalton A. Unexplained fractures in infancy: looking for fragile bones. *Arch Dis Child* 2007; 92: 251–6.
3. Amir J, Katz K, Grunebaum M, et al. Fractures in premature infants. *J Pediatr Orthop* 1988; 8: 41–4.
4. Smurthwaite D, Wright NB, Russell S, Emmerston AJ, Mughal MZ. How common are rib fractures in extremely low birth weight premature infants? *Arch Dis Child Fetal Neonatal Ed* 2009; 94: F138–9.
5. Koo WK, Sherman R, Succop P, Krug-Wispe S, Tsang RC, et al. Fractures and rickets in very low birth weight infants: conservative management and outcome. *J Pediatr Orthop* 1989; 9: 326–30.
6. van Rijn RR, Bilo RAC, Robben GF. Birth-related mid-posterior rib fractures in neonates: a report of 3 cases (and a possible 4th case) and a review of the literature. *Pediatr Radiol* 2009; 39: 30–4.
7. Hanigan WC, Peterson RA, Njus G. Tin ear syndrome: rotational acceleration in pediatric head injuries. *Pediatrics* 1987; 80: 618–22.
8. Miller M. The death of temporary brittle bone disease is premature. *Acta Paediatr* 2009; 98: 1871–3.

DOI:10.1111/j.1651-2227.2010.01693.x

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Does temporary brittle bone disease exist? Not by the evidence offered

Dear Sir,

We have the following disclosure. One of us (BSS) was the reporting witness and testified in the General Medical Council action concerning Dr Colin Paterson.

We read with surprise the article by Colin Paterson in the December issue of *Acta Paediatrica* (1). Dr Paterson describes five patients with multiple rib fractures all of which he claims were sustained while the patients were in hospital. Dr Paterson argues that these cases support the existence of temporary brittle bone disease.

In his case reports, Dr Paterson fails to provide key clinical, psychosocial, biochemical, radiological and genetic data sufficient to establish a diagnosis. Case 1 describes an infant born preterm with a well-described risk factor, namely osteopenia of prematurity. Case 2 is a large for gestational age infant who is delivered with vacuum assistance and may well have suffered a birth injury. Rib fractures sustained in these settings are, after careful medical evaluation, not likely to be confused with abuse.

Cases 3 and 4 are twins who spent a considerable amount of time at home prior to presentation of rib fractures. Case 4 presented with bruising around both ears and petechial haemorrhages on the face. The case description does not include data sufficient to support Paterson's claim that several of the fractures were sustained in hospital.

Rib fractures in infants, especially posterior rib fractures, are notoriously difficult to visualize with plain film x-rays until they start to show bony callus, a process that may take 7–10 days, or even longer (2). For this reason, the chest has often been imaged with radionuclide bone scan (3) which can demonstrate fractures earlier. Repeated skeletal survey should be conducted to ensure that no additional bony injury is missed (4).

In Case 5 while we can accept that the child sustained rib fractures while in hospital, we do not accept Dr Paterson's premise that injuries sustained in hospital by definition exclude abuse. Close medical supervision in the hospital does not amount to surveillance. Inflicted injuries occurring in hospital have been described in the medical literature (5,6). There have been descriptions

of hospital staff inflicting injury on children (5), and even one parent caught on covert video surveillance in a paediatric intensive care unit, removing an endotracheal tube from the child's airway (6).

In summary, we find that these five case reports fail to support the existence of temporary brittle bone disease, and remain unconvinced of the existence of this entity.

References

1. Paterson CR. Temporary brittle bone disease: fractures in medical care. *Acta Paediatr* 2009; 98: 1935–8.
2. Yeo LI, Reed MH. Staging of healing of femoral fractures in children. *Can Assoc Radiol J* 1994; 45: 16–9.
3. Smith FW, Gilday DL, Ash JM, Green MD. Unsuspected costo-vertebral fractures demonstrated by bone scanning in the child abuse syndrome. *Pediatr Radiol* 1980; 10: 103–6.
4. Kleinman PK, Nimkin K, Spevak MR, Rayder SM, Madansky DL, Shelton Y, et al. Follow-up skeletal surveys in child abuse. *AJR Am J Roentgenol* 1996; 167: 893–6.
5. Feldman KW, Mason C, Shugerman RP. Accusations that hospital staff have abused pediatric patients. *Child Abuse Negl* 2001; 25: 1555–69.
6. Kamerling LB, Black XA, Fiser RT. Munchausen syndrome by proxy in the pediatric intensive care unit: an unusual mechanism. *Pediatr Crit Care Med* 2002; 3: 305–7.

DOI:10.1111/j.1651-2227.2010.01746.x

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Vitamin D deficiency rickets and allegations of non-accidental injury

Sir,

Dr. Patterson reported four patients he felt sustained fractures because of vitamin D deficiency (1). His cases span 1980–2000. Case 1 had a normal alkaline phosphatase, while case 2 had low serum calcium and marked