

'Ping-pong skull' after a fall from bed

A 9-month-old boy of South Asian origin presented to the emergency department with a head injury after falling out of his parents' bed onto a carpeted floor. On examination, he had a 2 cm×2 cm smooth concavity in the right parietal region. He was playful, with an otherwise normal examination. The skull bones did not appear soft or brittle when pressed. There was nothing in the presentation that warranted a safeguarding investigation.

He had recently completed 12 weeks of treatment for presumed latent tuberculosis infection. On routine clinic bloodwork he had been found to be vitamin D deficient with a serum 25(OH)D concentration of <4 nmol/L, (deficiency <25 nmol/L),¹ a raised alkaline phosphatase (393 IU/L) and a low phosphate (<1 mg/L). Unfortunately, the patient was not offered colecalciferol because of a systems error.

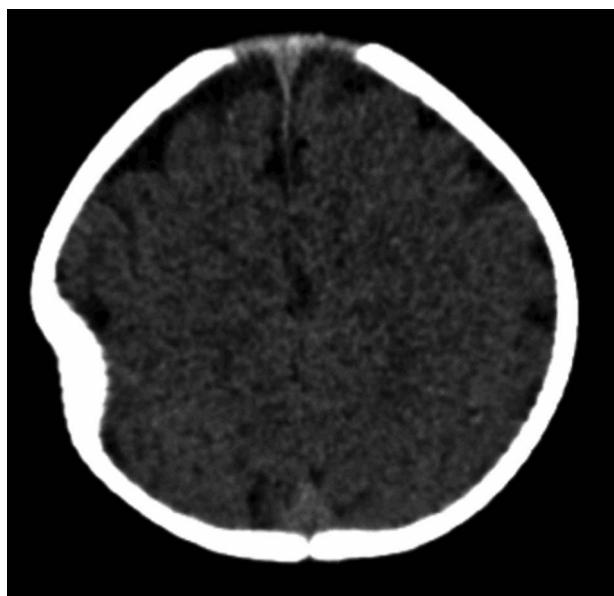


Figure 1 CT scan of infant's head demonstrating a concave depression of the right parietal bone.

A CT scan of his head demonstrated 'a depression of the right parietal bone by around 10–12 mm, concave in outline' (figure 1). There was no radiographic evidence of rickets on wrist radiographs. He was transferred to the local neurosurgical centre where the depression was elevated surgically by means of a burr-hole, after two failed attempts at elevation using 50 kPa breast pump suction. An excellent cosmetic result was achieved, and he was discharged from neurosurgical follow-up 2 months later. He continues to receive vitamin D supplementation under the care of a general paediatrician.

This type of greenstick deformity has been termed 'ping-pong skull' because of the skull's resemblance to an indented ping-pong ball. It occurs when the skull is still relatively soft and resilient and is able to be indented without a frank break in the bone. It was first described in 1910,² and there have been cases reported in newborns³ after high-impact collisions⁴ and falls onto toys.⁵ There are no reports of an association between 'ping-pong skull' and vitamin D deficiency or rickets. Our patient sustained this injury from falling out of bed, having previously been vitamin D deficient.

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Contributors FT admitted the patient, drafted and revised the paper and acts as the guarantor. RN and RV cared for the patient in the acute and follow-up period, and obtained consent for publication. RN and BJ revised the paper for intellectual content. All authors gave final approval of the version to be published.

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