

Images in...

## 'Ping pong' fracture in a term infant

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### DESCRIPTION

We report a term infant born by emergency C-section for fetal bradycardia. Active labour was established at the time of section, resulting in the fetus being deeply impacted and difficult to extract. Baby was born pale and floppy but responded to inflation breaths. Antenatal scans were unremarkable. She was noted to have a depression measuring 4×4 cm in the right parietal area. Skull x-ray (figure 1) showed a depressed fracture of the right parietal bone. There was no evidence of bruising or soft tissue swelling to support an acute injury. A head CT was performed which confirmed fracture and revealed no underlying intracerebral bleed or mass effect (figure 2). Neurological examination was unremarkable; she was observed for 48

h and discharged home with neuro-surgical and neonatal follow-up. It is very likely that the skull depression was congenital as there was no instrumentation used in labour. Neonatal skull depressions are rare, with an incidence of 1/10 000 in western countries.<sup>1</sup> They can occur spontaneously ('faulty fetal packing/congenital vault depression') as a result of external pressure (bony prominence, uterine fibroid, fetal extremities) or be 'instrument – associated' such as related to obstetric manoeuvres (forceps application).<sup>2 3</sup> Treatment options depend on the severity of the fracture and any underlying brain injury as identified by clinical examination or with imaging. Mild forms of depression have been reported to resolve spontaneously within months.<sup>2</sup> However non-surgical approaches such as use of an obstetric breast milk extractor have been described.<sup>1</sup> Management of severe cases may require surgical elevation plus management of underlying neurological sequelae.<sup>2 3</sup>



**Figure 1** Skull x-ray showing a right-sided ping pong fracture of the parietal bone.



**Figure 2** CT head showing the absence of intracranial bleeding or midline shift associated with the fracture.

## Learning points

- ▶ Detailed birth history and postnatal examination for evidence of acute injury are crucial to formulate a diagnosis between the two aetiologies of spontaneous or 'instrument associated', since radiological imaging provides little information to differentiate between the two.<sup>2</sup>
- ▶ Depressed skull fractures (DSF) in infants are often referred to as 'ping pong' since they reflect the skull being transformed from convex to concave, due to its malleability from not being ossified.<sup>1</sup>
- ▶ Intracranial lesions are more likely to occur from instrumental delivery compared with spontaneous DSF, where severe neurological sequelae may rarely occur.<sup>3</sup>

**Competing interests** None.

**Patient consent** Obtained.

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Please cite this article as follows (you will need to access the article online to obtain the date of publication).

Brittain C, Muthukumar P, Job S, Sank S. 'Ping pong' fracture in a term infant. *BMJ Case Reports* 2012;10.1136/bcr.01.2012.5631, Published XXX

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