

Clinical Image

Open Access, Volume 6

A rare cause of skull depression in newborns

Inês Pereira Soares*; Inês Carvalho; Sofia Pires; Thomas Wilcke

Instituto de Tecnologia Química e Biológica, Universidade Nova de Lisboa, Apartado 127, 2781-901 Oeiras, Portugal.

***Corresponding Author: Inês Pereira Soares**

Instituto de Tecnologia Química e Biológica,
 Universidade Nova de Lisboa, Apartado 127, 2781-
 901 Oeiras, Portugal.
 Email: ines_ips93@hotmail.com

Abstract

Ping-pong fractures are rare congenital skull depressions that occur spontaneously or secondary to birth trauma. We report a case of a neonate born via cesarean section with suction assistance at 39 weeks. A 4 cm left parietal depression was noted at birth. Head CT revealed a depressed left parietal fracture with mild parenchymal compression and lambdoid suture misalignment but no mass effect or bleeding.

Received: Feb 12, 2025

Accepted: Mar 17, 2025

Published: Mar 24, 2025

Archived: www.jcimcr.org

Copyright: © Pereira Soares I (2025).

DOI: www.doi.org/10.52768/2766-7820/3522

Keywords: Parietal depression; Spontaneous; Fracture; Newborn.

Case description

A 3500 gms girl was born via caesarean with the assistance of a suction cup delivery due to fetal distress at 39 weeks' gestation. The prenatal course was uneventful. Apgar score was 9/10/10. Upon observation it was noted a left parietal depression, with four centimetres of diameter, without bruising or soft tissue swelling (Figure 1). The anterior fontanelle was soft and flat, and the neurologic examination unremarkable. A head computerized tomography was performed showing a depressed left parietal fracture slightly compressing the underlying parenchyma causing misalignment of the lambdoid suture (Figures 2,3). There were no signs of mass effect, bleeding, or hydrocephalus. She was discharged after 72 hours with a plan of neurosurgical follow-up. Spontaneous resolution was awaited with notorious improvement at just 1-month-old.

Discussion

Ping-pong fractures are a rare congenital depressed skull fractures that occur spontaneously or secondary to birth trauma in 1-2, 5 newborns per 10,000. Management options include neurosurgical interventions, non-surgical procedures such as digital pressure and vacuum extractor, or watchful waiting. The choice of approach is based on clinical examination, severity of the fracture and the presence of underlying brain injury. Surgery is typically reserved for infants with cerebral le-

sions, neurological deficits, or failure to respond to conservative treatment. The exclusion of endocranial neurological lesions is essential and implies the performance of a head computerized tomography.

Most untreated fractures resolve within six months without significant increase in the risk of post-traumatic seizures or neurologic sequelae.



Figure 1: Newborn with left parietal depression.

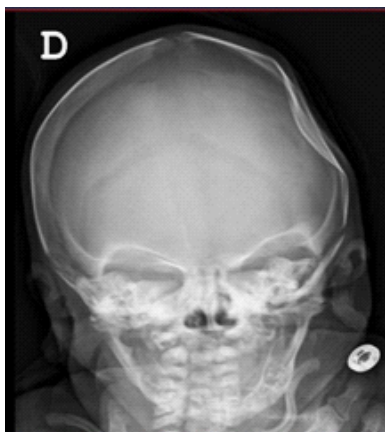


Figure 2: Head TC: Left-sided parietal bone depression fracture.

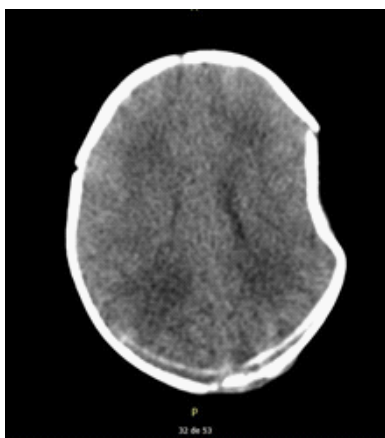


Figure 3: Head TC: localized indentation in the bone, with a slight widening of the nearby coronal suture on the same side.

Declarations

An acknowledgment statement: We sincerely appreciate the collaboration and expertise of the neurosurgery team in managing this patient.

A conflict of interest statement: The authors state that there is no conflict of interest regarding the publication of this article. There were no external funding sources for this paper.

An ethics approval statement (if relevant): An ethics approval statement is not applicable to this publication.

Patient consent for publication statement (if relevant): The authors state that the patient consent was obtained.

References

1. Preston D, Jackson S, Gandhi S. Non-traumatic depressed skull fracture in a neonate or 'ping pong' fracture. *BMJ Case Rep.* 2015.
2. Amaral ME, Grilo E, Mimoso G, Ping-Pong Fracture. *Acta Pediatr Port* 2015; 46: 152-3.
3. Silva JRB, João A, Miranda N. Ping-pong fracture in newborn: A rare diagnosis. *Acta Medica Portuguesa. CELOM;* 2019; 32: 549.