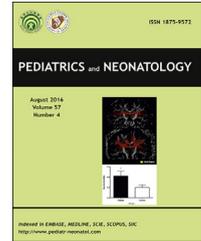


Available online at www.sciencedirect.com

ScienceDirect

journal homepage: <http://www.pediatr-neonol.com>

Images

Intrauterine depression of the skull in a neonate

Keisuke Futakuchi, Kei Tamai*, Akihito Takeuchi, Misao Kageyama, Makoto Nakamura

Division of Neonatology, Okayama Medical Center, National Hospital Organization, Okayama, Japan

Received Jun 20, 2022; received in revised form Aug 11, 2022; accepted Sep 15, 2022
Available online ■ ■ ■

A 2716-g singleton boy was born at 38 weeks of gestation via a scheduled cesarean section at another hospital. There was no history of instrumentation or birth trauma during delivery. The patient was presented at our hospital at 0 days of age because of a skull depression on the right side (long diameter, 4 cm; short diameter, 3 cm; and depth, 0.5 cm) at birth. On examination, there was no local tenderness, trauma, or neurological deficit, and

computed tomography of the head showed no signs of intracranial injuries or fracture (Figs. 1A and 1B). Owing to his good condition, the patient was managed conservatively. The depression of the skull resolved spontaneously by 3 months of age, and developmental milestones and neurological examinations were normal at 1 year of age. Written informed consent for publication was obtained from the patient's parents.

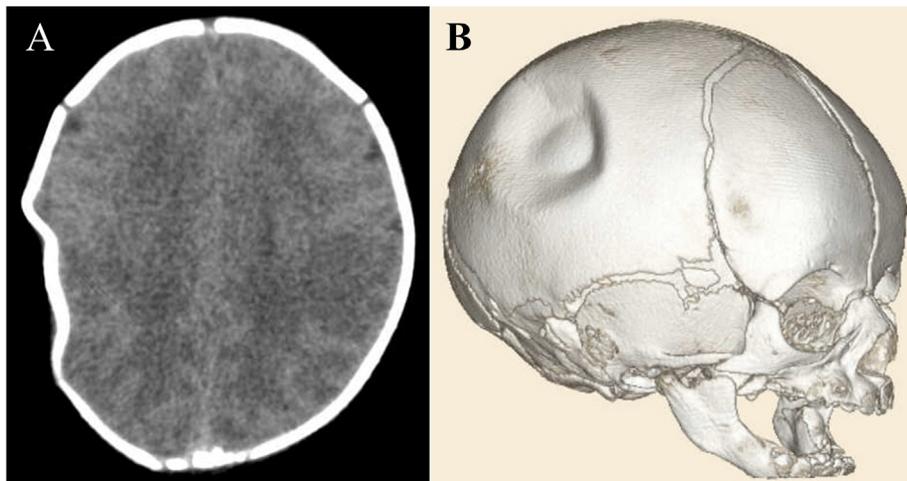


Figure 1 A Axial computed tomography scan demonstrating the depression of the skull with no intracranial hematomas or associated fractures. B Three-dimensional reconstruction images of the computed tomography scan.

* Corresponding author. 1711-1 Tamasu, Kita-ku, Okayama, 701-1192, Japan.
E-mail address: gmd501041@s.okayama-u.ac.jp (K. Tamai).

<https://doi.org/10.1016/j.pedneo.2022.09.002>

1875-9572/ Copyright © 2022, Taiwan Pediatric Association. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Please cite this article as: K. Futakuchi, K. Tamai, A. Takeuchi et al., Intrauterine depression of the skull in a neonate, Pediatrics and Neonatology, <https://doi.org/10.1016/j.pedneo.2022.09.002>

Depressed neonatal skull fractures are rare, with a reported incidence of 1–2.5 per 10,000 live births, and can be classified into the following two types: fracture caused by obstetric manipulation and spontaneous skull depression.¹ Spontaneous depression of the fetal skull is believed to be caused by chronic compression of the fetal skull by the mother's pelvis, a uterine tumor, or a body part of a twin.¹ The majority of skull depressions resolve spontaneously within 6 months without any neurologic sequelae,² while some cases require surgical procedures or restoration using an obstetric aspirator.³ Nevertheless, the optimal management of this condition remains controversial.

In conclusion, we describe a case of congenital depression of the skull without any trauma or intracranial lesions, which was successfully managed conservatively without any neurological deficits. Considering the invasiveness of surgery, surgical treatment should be restricted to cases without spontaneous resolution within several months.

Informed consent

We obtained written consent for publication from the parents of the patient.

Conflicts of interest

None.

Acknowledgments

The authors gratefully acknowledge the patient and his family for participating in this report. We would like to thank Editage (www.editage.com) for English language editing.

References

1. Ilhan O, Bor M, Yukkaldiran P. Spontaneous resolution of a 'ping-pong' fracture at birth. *BMJ Case Rep* 2018;2018:bcr2018226264.
2. Bidhan S, Shaw SC, Saravagi G, Gupta R. Congenital depression of neonatal skull. *Med J Armed Forces India* 2019;75:464–6.
3. Veeravagu A, Azad TD, Jiang B, Edwards MSB. Spontaneous intrauterine depressed skull fractures: report of 2 cases requiring neurosurgical intervention and literature review. *World Neurosurg* 2018;110:256–62.