Clinical Images

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# Differential diagnosis of bulging scalp: beyond cephalohematoma and subgaleal hematoma

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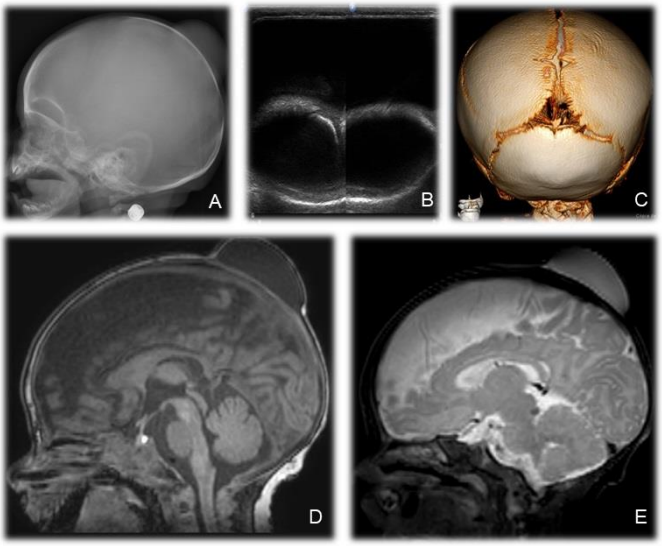


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A 30-day-old infant was brought to the pediatric emergency room with a bulge in the scalp in the parieto-occipital region, mobile and without associated phlogistic signs. He had no history of fever or any other complaints. The mother reported that the bulge appeared at 20 days of life and showed progressive growth. There was no history of trauma. The boy was born at term by cesarean delivery due to cephalopelvic disproportion.

For initial evaluation, skull X-ray and cerebral ultrasound were performed (Figure 1). A magnetic resonance imaging and tomography of the brain were also performed (Figure 1).

Faced with the diagnostic challenge, neurosurgery proceeded with drainage of the collection and biopsy of the galea. No malignant cells were found and the biopsy only found an inflammatory change. Given these findings, the diagnosis of delayed subaponeurotic fluid collection (DSFD) was made. There was no recurrence of the collection and the patient had a good evolution.

DSFD are a rare condition, which occurs spontaneously between the 4th and 18th week of life, and makes the differential diagnosis with cephalohematoma, caput succedeneum and subgaleal hematoma [1]. Its pathophysiology is not fully elucidated; however, most reports share a similar history of prolonged or instrumented delivery [1,2]. Patients are otherwise healthy and with no history of trauma [2].

The management of DSFD is conservative and the natural history is spontaneous resolution within 1 to 2 months [1,2].

## ACKNOWLEDGMENTS

## DISCLOSURES

### *Ethical approval*

This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the local Ethics Committee, Comitê de Ética do Hospital de Clínicas de Porto Alegre

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### *Consent to participate*

The patients gave consent to use their information and images for research purposes. *Consent for publication*

The patient gave consent to use his information and images for publication.

### *Conflict of interest*

The authors report no conflict of interest concerning the materials or methods used in this study or the findings specified in this paper.

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### CONTRIBUTIONS

-**Lillian Gonçalves Campos**: Conceptualization, Data curation, Supervision, Writing – review & editing
-**Tassia Andrea Duraes Prioste**: Conceptualization, Data curation, Writing – original draft
-**Jorge Wladimir Junqueira Bizzi**: Supervision, Validation, Writing – original draft, Writing – review & editing

### REFERENCES

1. Wang S, Drake J, and Kulkarni AV. Management and outcome of spontaneous subaponeurotic fluid collections in infants: the Hospital for Sick Children experience and review of the literature. Journal of Neurosurgery: Pediatrics 18.4 (2016): 442-447.
2. Faried A, Imron A, Aliyannissa A, Indrawati D. Delayed subaponeurotic fluid collection on an infant's head: Underreported case and review of the literature. Surgical Neurology International 12 (2021).