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Visual Diagnosis in Emergency Medicine

J-SHAPED SELLA IN A 7-MONTH-OLD INFANT

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CASE REPORT

A 7-month-old male infant was brought to the emergency department (ED) with chief complaints of sudden-onset irritability and high-pitched crying without fever. He was born at term with no prenatal problems at time of birth. He was growing well (body weight 8.1 kg and head circumference 87th percentile). His physical examination was completely unremarkable except that the parietal emissary veins were engorged during crying without macrocephaly. The anterior fontanelle was nearly closed, but posterior fontanelle remained open. We performed an abdominal ultrasound and skull x-ray study to evaluate the causes of irritability and excessive crying. The abdominal ultrasound was unremarkable; however, the lateral skull x-ray study showed a J-shaped sella,

Figure 1. A shallow, elongated or J-shaped sella turcica with an elongated anterior recess, extending below the anterior clinoid process was showed on the skull lateral x-ray study (black circle).

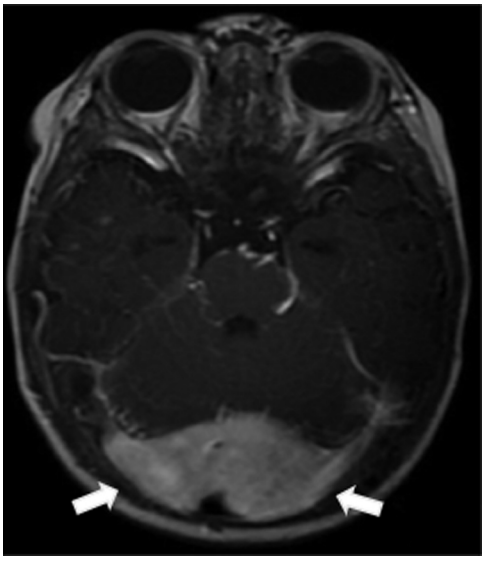

Figure 2. T1-weighted brain magnetic resonance imaging scan showed a large hyperintense lesion located at the torcular herophili and posterior superior sagittal sinus (solid arrows).

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which suggested intracranial mass or mild hydrocephalus (Figure 1), therefore, the patient underwent brain magnetic resonance imaging. He was finally diagnosed with torcular dural venous sinus malformation associated with cerebral venous thrombosis (Figure 2).

DISCUSSION

A J-shaped sella is a shallow, elongated or boot-shaped sella turcica with an elongated anterior recess, extending below the anterior clinoid process, usually seen in optic chiasm glioma, mild hydrocephalus, mucopolysaccharidoses, achondroplasia, and normal variation in children within 5% (1–3). While it can be a normal anatomic variant, it may be associated with increased intracranial pressure, such as in our case. When there are no specific clues to diagnosis in infants with irritability or incessant crying, a skull lateral x-ray study might help a physician make an accurate diagnosis.

REFERENCES

1. Wren MW. Significance of the so-called J-shaped sella in the diagnosis of intracranial aneurysm. Br J Ophthalmol 1969;53:307–9.
2. Swischuk LE. The normal pediatric skull. Variations and artefacts. Radiol Clin North Am 1972;10:277–90.
3. Di Chiro G, Nelson KB. The volume of the sella turcica. Am J Roentgenol Radium Ther Nucl Med 1962;87:989–1008.