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Newborn With Scalp Swelling

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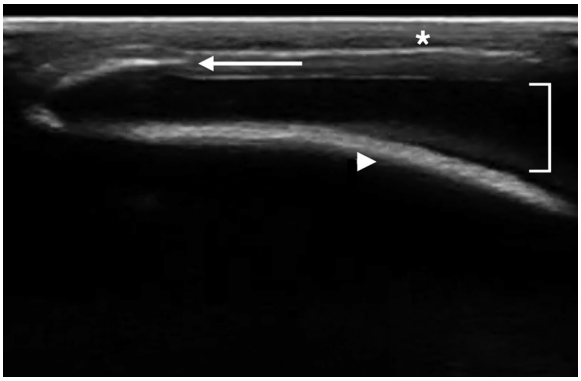

Figure 1. Point-of-care ultrasonographic image demonstrating the skin (asterisk) and skull cortex (arrowhead) with a disruption in the cortex of the skull, with step deformity (arrow) and hematoma (bracket).

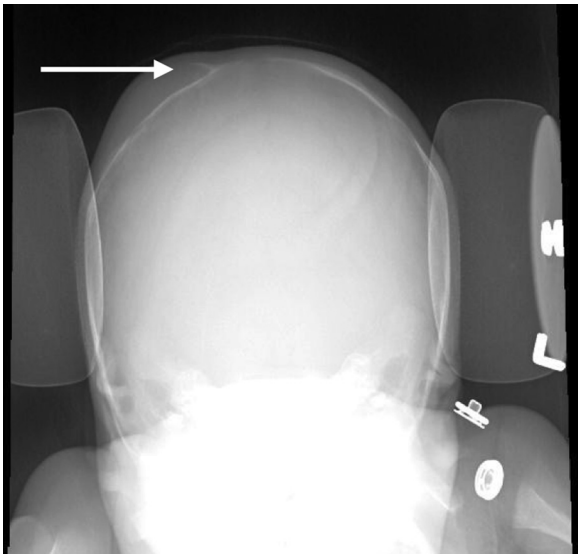

Figure 2. Radiograph of the skull demonstrating a calcified rim (arrow) over the superior edge of the cephalohematoma.

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A 5-week-old female infant was brought to the pediatric emergency department with prominent scalp swelling over the right parietal area. She was born at term by vacuum-assisted vaginal delivery for fetal decelerations. The swelling was present since birth and was not resolving. Her physical examination revealed a large 4×4-cm boggy hematoma with a step deformity palpated over the superior edge. The rest of her examination result was unremarkable. Bedside ultrasonography of the skull was performed and showed a discontinuity of the bony cortex, a cortical step deformity, and an organized hematoma (Figure 1). The diagnosis was confirmed by radiograph (Figure 2).

For the diagnosis and teaching points, see page e94.
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DIAGNOSIS:

Calcified cephalohematoma. Cephalohematomas are common and occur in 1% to 2% of spontaneous vaginal deliveries, with an increased incidence up to 10.8% in forceps or vacuum-assisted deliveries.[1] Most cephalohematomas spontaneously resolve, but rarely they can be complicated by calcification of the hematoma. Once calcified, the hematoma may require surgical excision to avoid long-term complications and skull deformities.[2]

Recently, bedside ultrasonography has been found to be a great adjunct for the diagnosis of skull fractures,[3] with higher sensitivity and specificity than skull radiographs. The diagnostic criterion standard for skull fractures and intracranial injury is computed tomography of the head, but this exposes children to radiation, with its associated risk of secondary malignancies,[4] and is complicated by the need for sedation. To our knowledge, we describe the first case of calcified cephalohematoma visualized as cortical disruption on ultrasonography. Our patient was followed by neurosurgery and had spontaneous resolution of her calcified cephalohematoma.

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