Child Neurology: A growing skull fracture

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Figure CT and MR images of the patient's growing fracture

CT of the brain revealed a skull defect on the localizing sagittal image (A), with axial views demonstrating underlying gliosis and demarcated volume loss within the lateral right sensorimotor cortex (B). The cerebral volume loss and bony defect are both striking on the subsequent axial T2-weighted (C) and coronal fluid-attenuated inversion recovery (D) MRI sequences.

An 18-year-old woman had a partial seizure affecting the left arm with secondary generalization. There was no history of seizures. Her mother recalled that the patient sustained a head injury as a 3-week-old neonate, falling from the sofa onto a carpeted floor. No investigations were undertaken at the time of the fall, but a CT scan postseizure revealed a skull defect of the right parietal bone, with underlying gliosis (figure).

Growing fractures progressively increase in size and may be associated with an underlying dural tear and arachnoid cyst formation. They are estimated to

occur in <1% of linear skull fractures sustained under 3 years of age—the most vulnerable age group.¹ They can present many years later with headache, seizures, and hemiparesis.²

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