An 18-month-old boy admitted at the neurosurgery department following a fall developed sudden swelling of his left upper eyelid 10 days later. Initial evaluation at presentation revealed a fissure fracture on the left lateral aspect of his frontal bone continuous with a left orbital roof fracture. Ophthalmologic examination at that time showed only mild eyelid ecchymosis. On examination in the second consult, there was marked swelling of the left upper eyelid with inability to open the eye (Fig. A). CT scan revealed widening of the frontal bone fracture and the left orbital roof fracture with a hypodense cystic swelling in the left orbit and upper eyelid and left frontal lobe contusion. A three-dimensional CT reconstruction best demonstrated the extent of the fracture (Fig. B). MRI showed a hyperintense cystic swelling on T2-weighted imaging seen in the orbit and upper eyelid in coronal (C) and sagittal (D) sections consistent with an orbital and subcutaneous encephalocele. Postoperatively there was marked improvement in clinical (E) and MRI (F) findings.

Orbital encephalocele is a rare complication of orbital roof fracture which is also rare but more common in children. It may be delayed, owing to brain herniation from increased intracranial tension and commonly associated with frontal lobe contusions. It is best visualized using MRI and requires immediate intervention.