

Eosinophilic Granuloma

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History

7 month old female with palpable right supraorbital lesion.

Diagnosis

Eosinophilic granulomas

Discussion

Langerhans cell histiocytosis (LCH) is the result of uncontrolled proliferation of a bone marrow derived cell in various tissues. The Langerhans cell is characterized by Bierbeck granules on electron microscopy and CD1 and S100 positivity on immunohistochemical evaluation. LCH is the result of an immature immune system; LCH tends to be more severe in young patients.

LCH of bone results in destruction of bone and marrow by infiltration of Langerhans cells, eosinophils, neutrophils and macrophages. Patients present with bone pain and swelling. Bone involvement is present in more than 80% of cases with single or multiple lytic lesions. Any bone can be involved but the skull is most common.

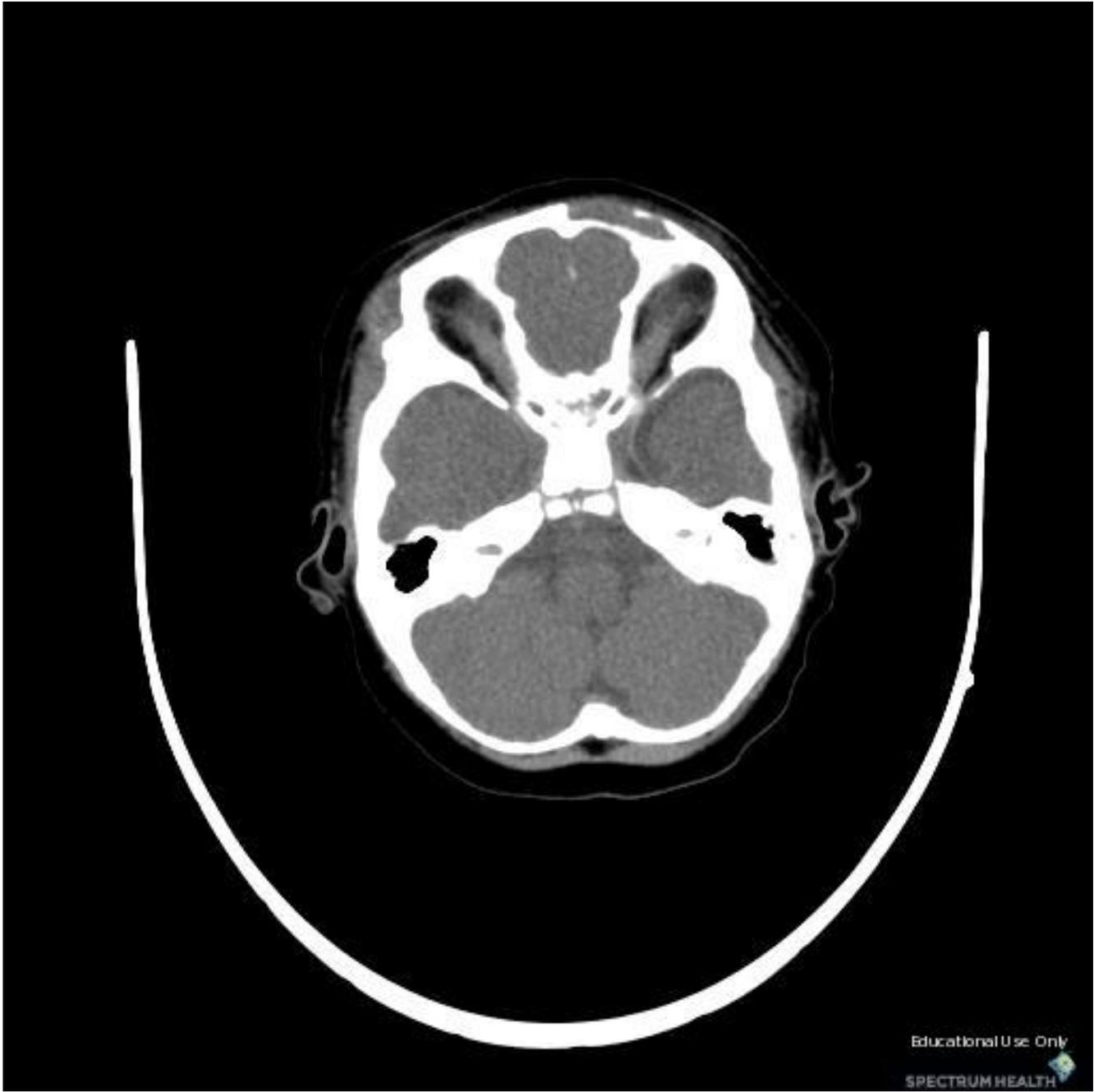
On CT, skull lesions may be punched out, beveled, or occasionally sequestrum. Soft tissue masses often demonstrate enhancement and may be associated with dural extension. Calcification are rare.

Findings

CT-transdiploic left frontal and right superolateral orbital destructive lesions demonstrating uniform soft tissue density.

Reference

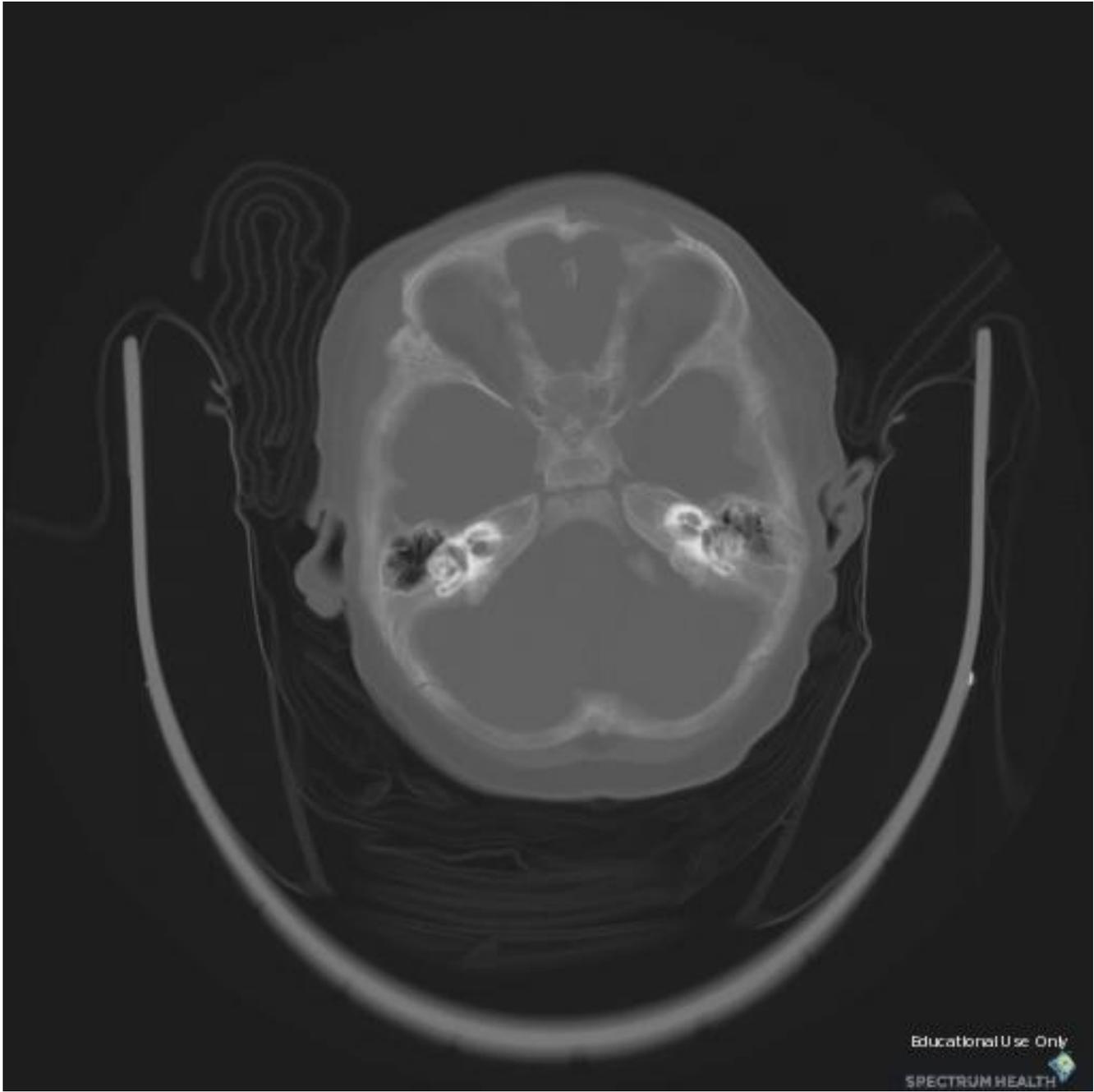
Azouz EM, et al. Langerhans' cell histiocytosis: Pathology, imaging and treatment of skeletal involvement. *Pediatric Radiology* 2005; 35(2):103-115.





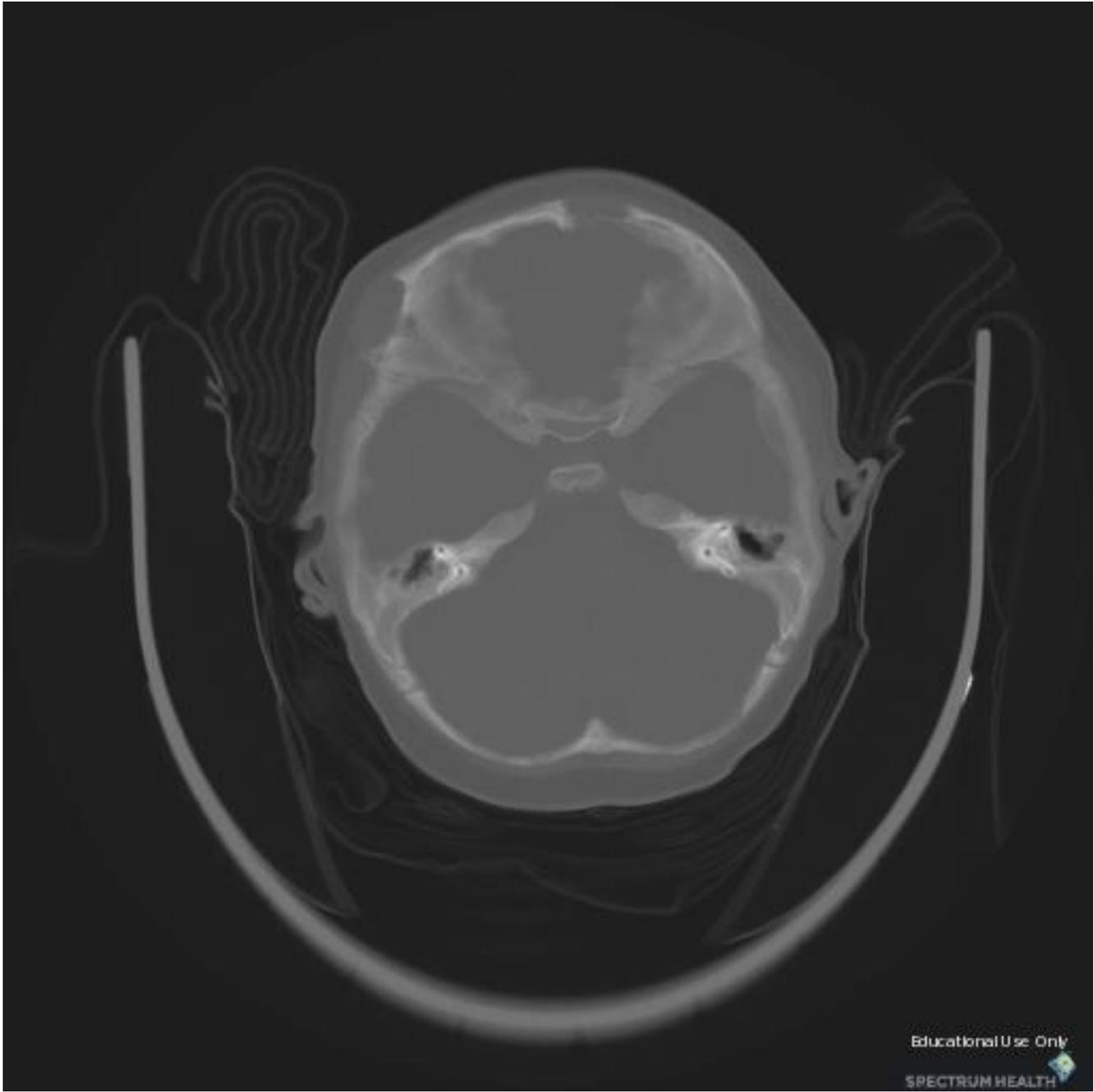
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