

Orbital Hemangioma

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History

3 month old male with left orbital mass.

Diagnosis

Orbital Hemangioma

Discussion

Vascular lesions account for 5%–20% of orbital masses and hemangioma and lymphangioma are the most common vascular lesions in the orbit. Much controversy exists regarding the nomenclature and classification of these lesions. The term hemangioma (infantile hemangioma or capillary hemangioma) should be reserved for true neoplasms with vascular channels lined by proliferating endothelial cells. These lesions occur in newborns shortly after birth and then undergo a proliferative phase of growth. Other vascular lesions are developmental anomalies and should be designated malformations. These malformations consist of vascular channels of varied size and histologic type, lined by nonproliferating endothelial cells. The lesions are formed of collections of abnormally dilated arteries, veins, capillaries, or lymphatic vessels. Unlike hemangiomas, vascular malformations grow commensurate with the growth of the patient and never spontaneously involute.

Infantile hemangioma is the most common tumor of infancy. Sixty percent of these tumors occur in the head and neck. Hemangioma has no known familial or hereditary association. There is a slight female predilection, with a female-to-male ratio of 3:2. Almost all cases are diagnosed within the first 6 months of life. Hemangiomas then enter a proliferative phase, which lasts up to 10 months after diagnosis, followed by a short period of stabilization and then a prolonged period of slow involution, which may last as long as 7–10 years.

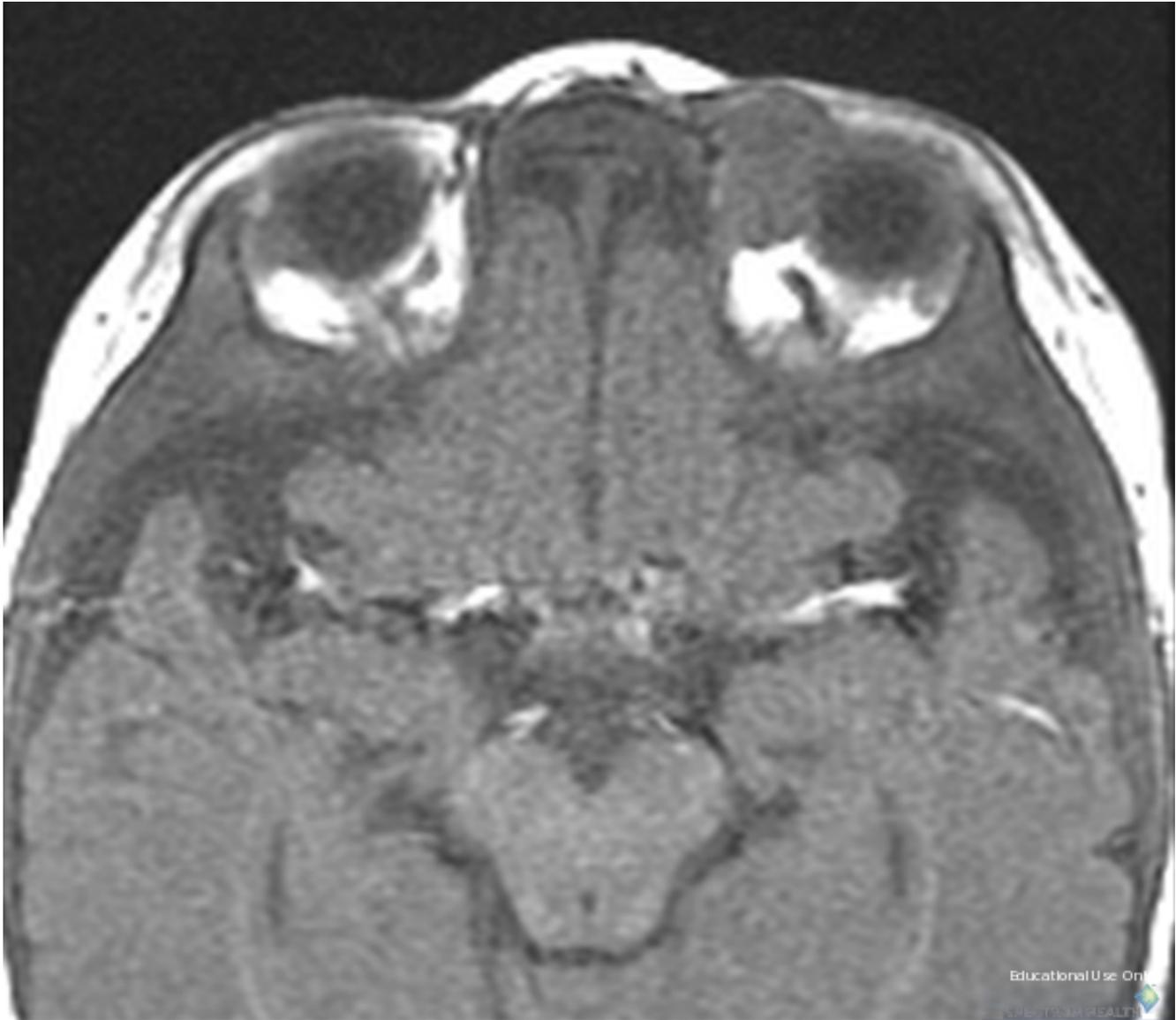
The majority of hemangiomas that involve the orbital region are anterior, but occasionally they are found in the retro-ocular portions of the orbit. The most frequent appearance of a hemangioma in the periorbital region is a strawberry lesion involving the eyelid. Patients with deeper lesions develop proptosis in early infancy. As the mass enlarges, amblyopia, visual axis occlusion, stretching of the optic nerve, bleeding, and corneal ulceration may develop. Almost one-third of patients with orbital hemangiomas have additional lesions in the skin or viscera. Some orbital hemangiomas may be associated with cerebral and vascular anomalies known as PHACES syndrome, which is an acronym encompassing posterior fossa anomalies, hemangiomas of the face, arterial abnormalities (including coarctation of the aorta), cerebral vascular anomalies, eye abnormalities, and sternal or ventral developmental anomalies.

Findings

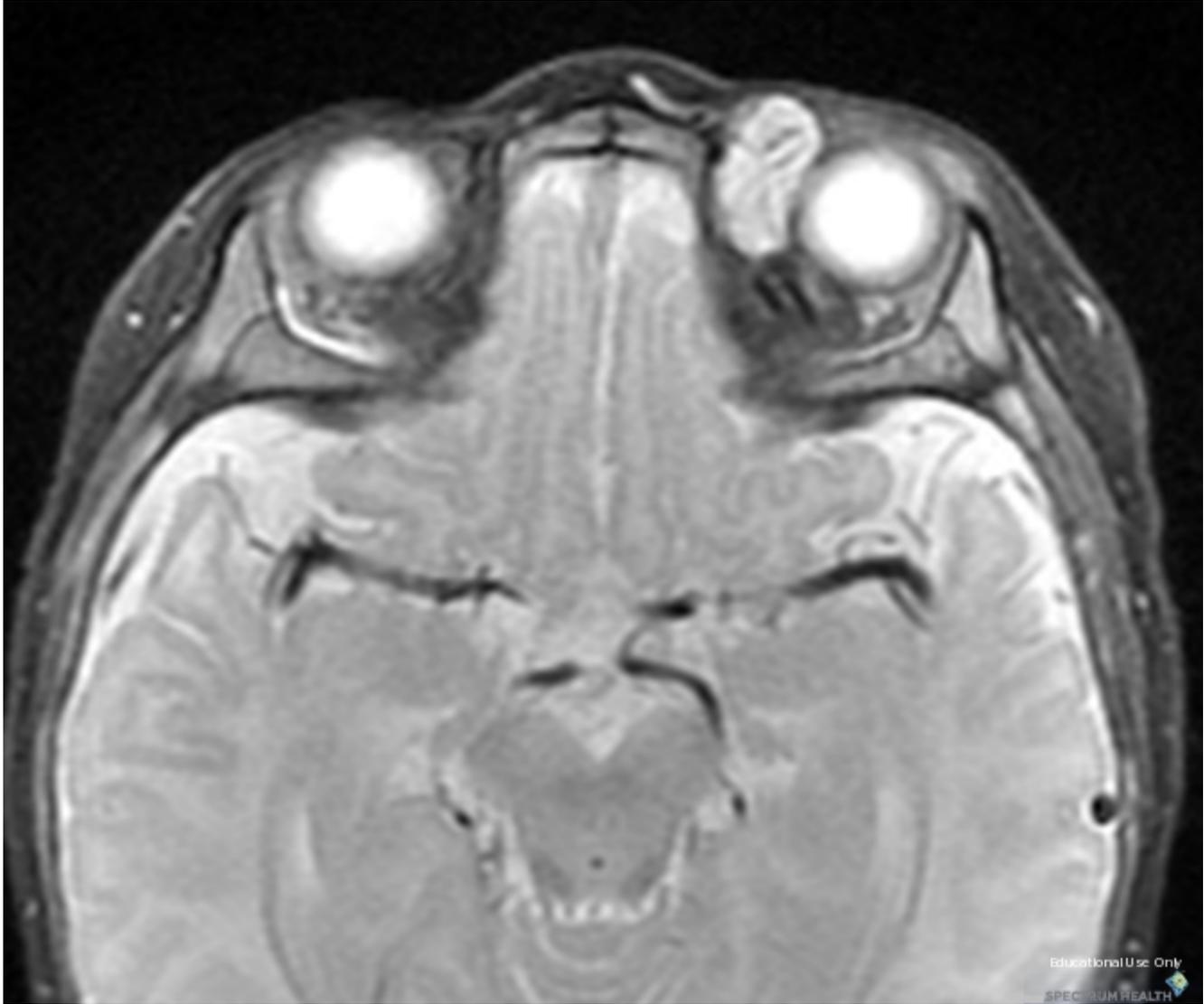
MR-Axial images show isointense T1 and hyperintense fat-suppressed T2 and postgadolinium T1 lesion in the nasosuperior quadrant of the left orbit.

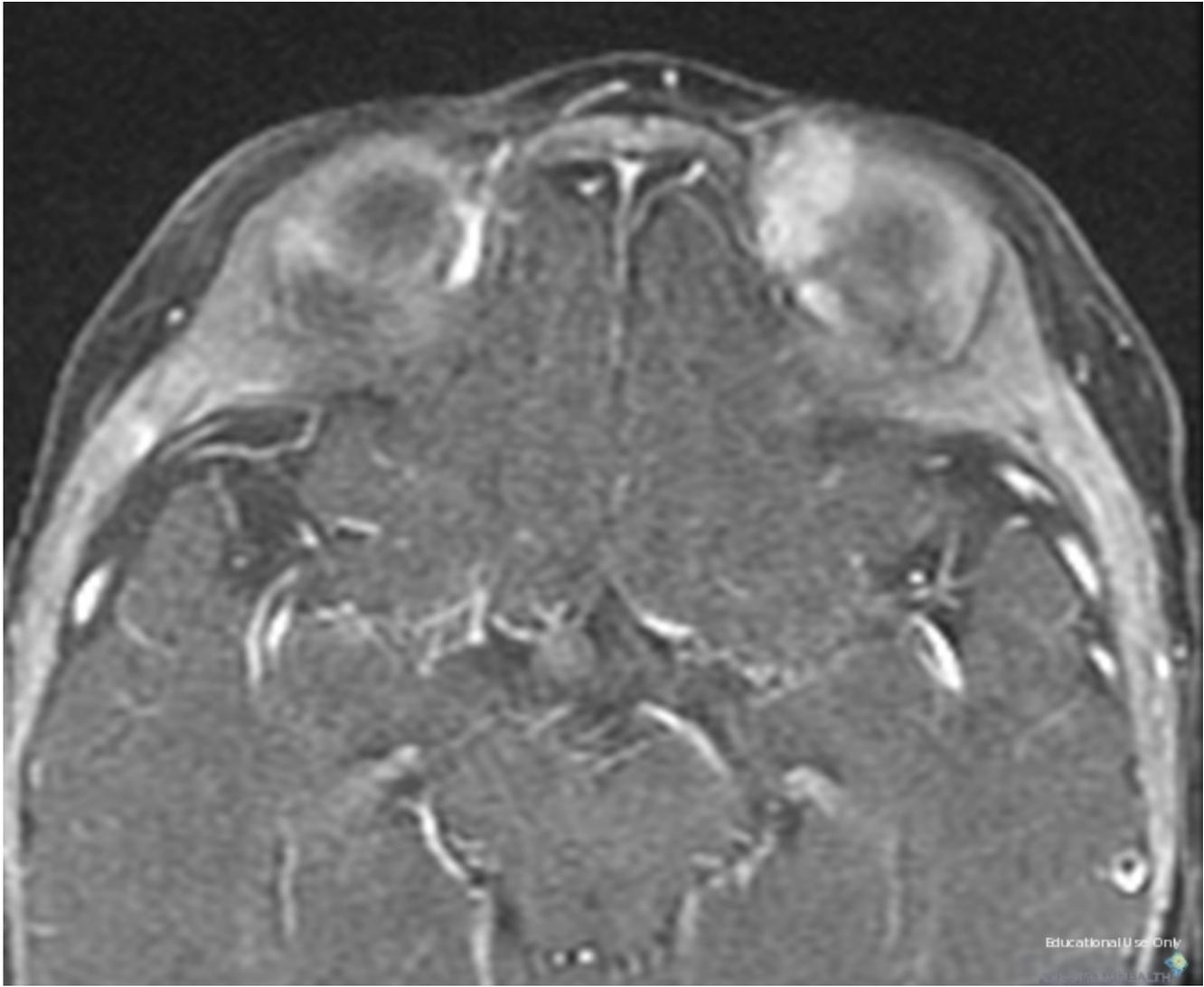
Reference

Chung EM, Smirniotopoulos JG, Specht CS, Schroeder JW et al. Pediatric Orbit Tumors and Tumorlike Lesions: Nonosseous Lesions of the Extraocular Orbit. *Radiographics* (2007); 27:1777-



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