

GRANDROUNDS



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Zoom: https://arizona.zoom.us/i/89176474575

Imaging of Orbital Masses

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Abstract

Orbital masses encompass a wide spectrum of developmental, inflammatory, and neoplastic conditions that may affect the globe, optic nerve and sheath, extraocular muscles, or orbital spaces. Accurate diagnosis requires careful integration of clinical presentation, anatomic localization, and imaging features. Key entities include intraocular lesions such as retinoblastoma and uveal melanoma, optic nerve and sheath tumors such as gliomas and meningiomas, and common intraconal or extraconal lesions like cavernous venous malformations, schwannomas, and lymphoproliferative disorders. Inflammatory conditions such as idiopathic orbital inflammation, thyroid-associated orbitopathy, sarcoidosis, and IgG4-related ophthalmic disease represent important mimics of neoplasia.

This presentation reviews the radiologic hallmarks, differential diagnostic considerations, and clinical correlations of orbital masses across compartments. Emphasis is placed on characteristic imaging findings—such as signal intensity patterns, enhancement behavior, and diffusion metrics—that aid in narrowing the differential and guiding biopsy or treatment decisions. Through case-based discussion, the talk highlights common pitfalls, rare but clinically significant entities, and practical diagnostic strategies for radiologists evaluating orbital disease."

Bio

Burçe Ozgen, MD, is Professor of Clinical Radiology at the University of Illinois at Chicago. She completed her medical degree and radiology residency at Hacettepe University in Turkey, followed by neuroradiology fellowships at the Medical College of Wisconsin and Brigham and Women's Hospital, Harvard Medical School.

Objectives

- Formulate a differential diagnosis for orbital masses on the basis of their location and imaging features
- Recognize specific imaging features of orbital neoplasms
- Recognize specific imaging features of inflammatory and vascular lesions mimicking neoplasms

ACCREDITATION

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