

Orbital Sarcoidosis

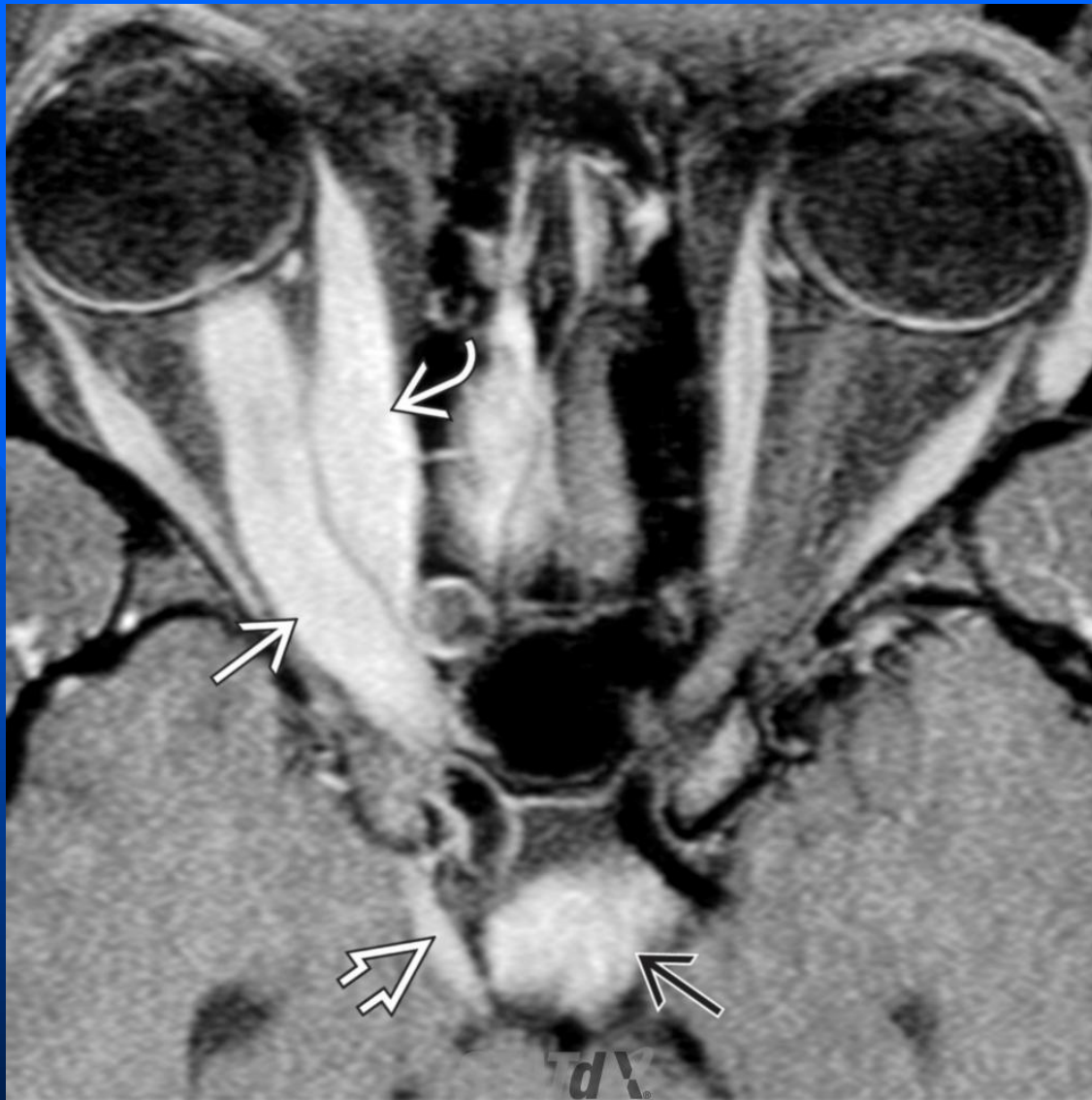
- Imaging appearance similar to that of idiopathic inflammation and lymphoproliferative lesions.
- Unknown etiology
- Noncaseating granulomas are pathologic hallmark
- Elevated ACE levels support diagnosis
- Isolated **orbital sarcoid reaction** without systemic disease considered distinct from sarcoidosis

Imaging

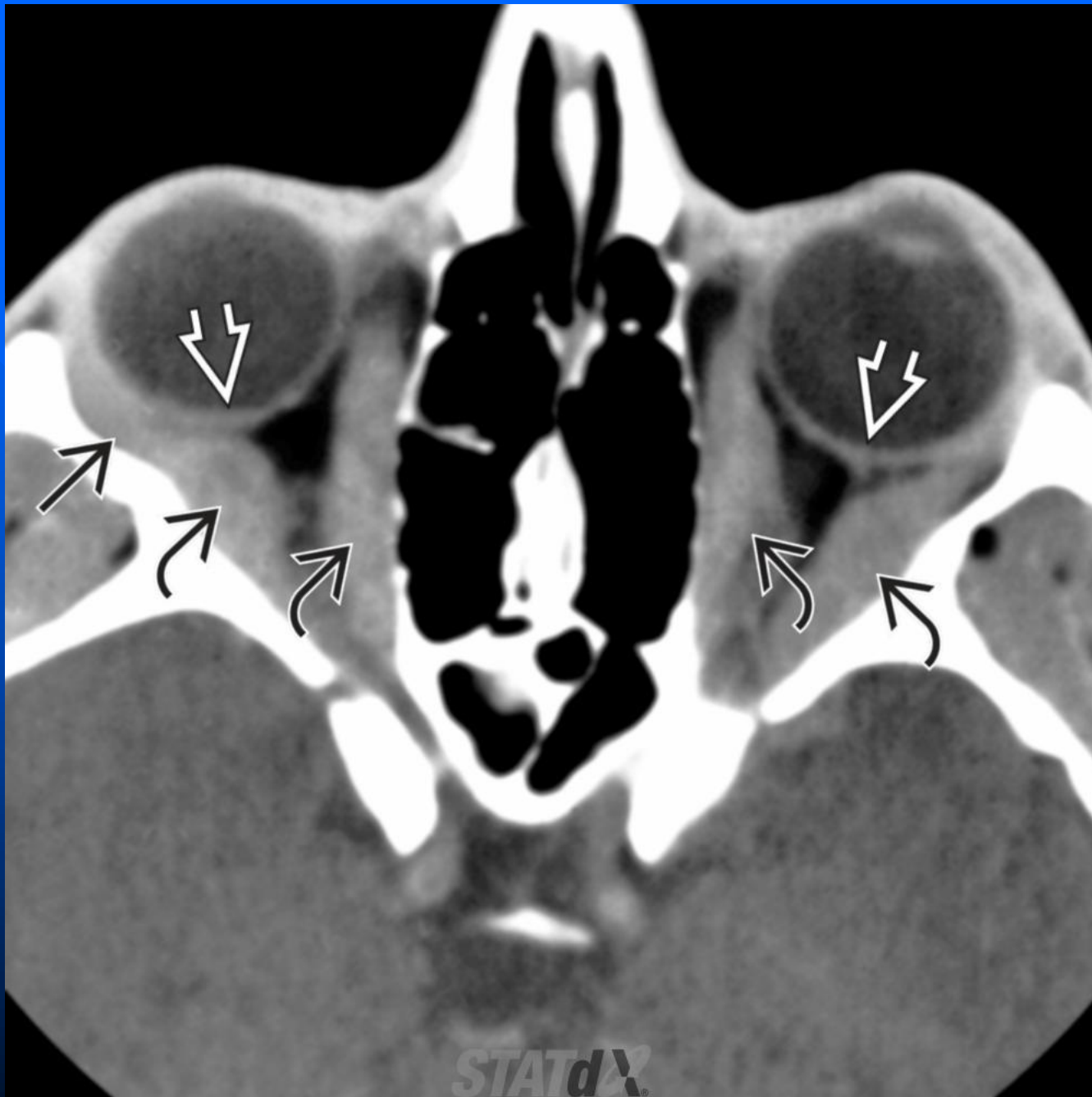
- Multiple sites of orbital involvement
 - Diffuse lacrimal gland infiltration
 - Optic nerve-sheath thickening, enhancement
 - Asymmetric extraocular muscle infiltration
 - Intraorbital enhancing soft tissue masses
 - Eyelid and periorbital preseptal infiltration
 - Uveitis, especially anterior, but also posterior
- Best imaging tool: T2 FS MR and T1 C+ MR
- Ga-67 scintigraphy supportive but nonspecific



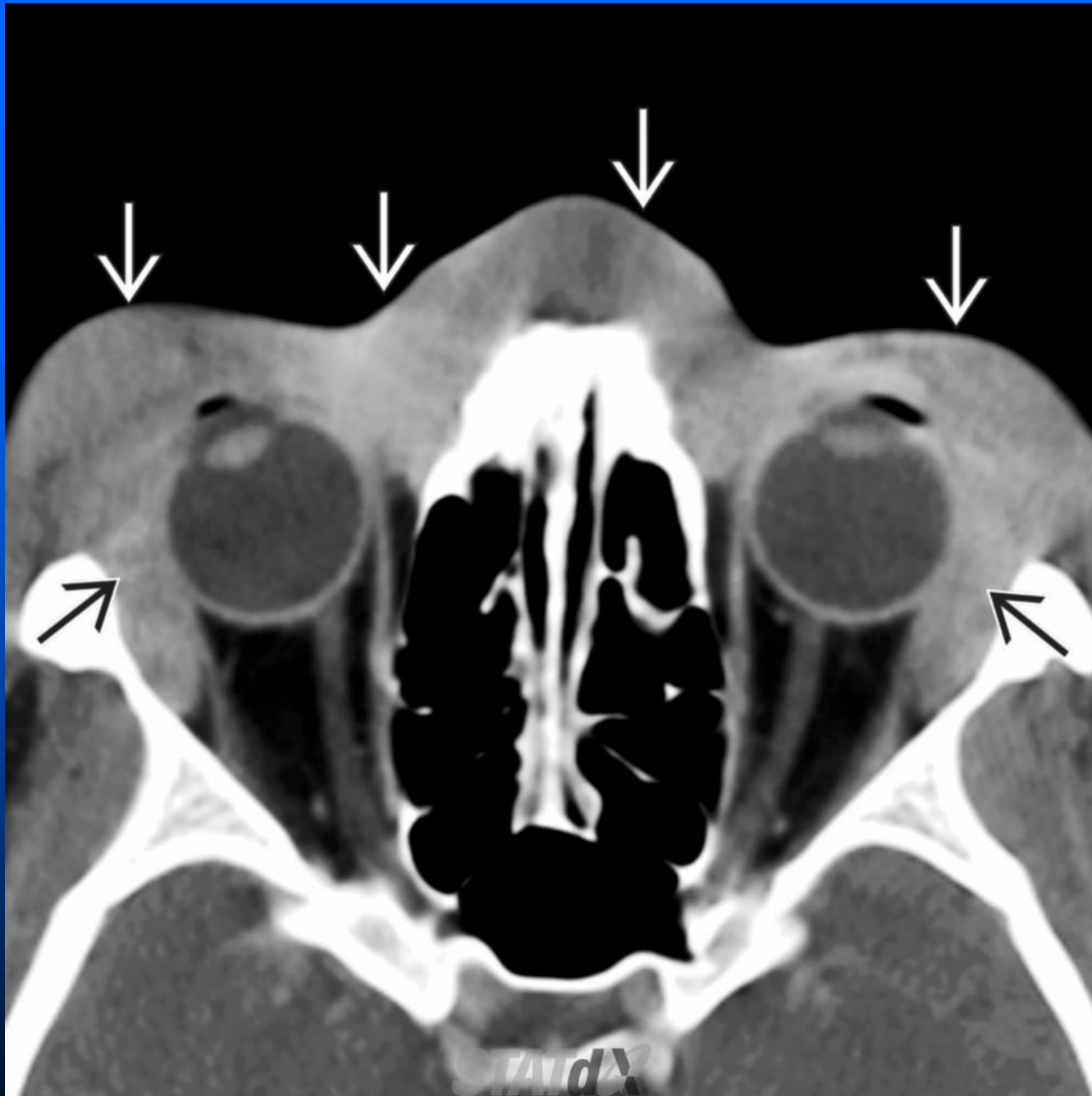
Axial T1 FS C+ MR shows mass-like infiltration (white solid arrow) of left retrobulbar orbit, with associated proptosis and mild globe tenting (white curved arrow). Preseptal thickening and inflammation are also present (white open arrow). Patient had mild systemic sarcoidosis elsewhere, with mediastinal adenopathy.



Axial T1 C+ FS MR shows numerous ophthalmologic manifestations of sarcoidosis, with thickening and enhancement of right optic nerve (white solid arrow), medial rectus (white curved arrow), and oculomotor CNIII (white open arrow). Suprasellar granulomatous mass is also present (black solid arrow).



Axial CECT shows bilateral orbital sarcoidosis with lacrimal gland involvement (black solid arrow) and diffuse extraocular muscle enlargement (black curved arrow). There is mild uveoscleral thickening (white open arrow).



Axial CECT shows marked bilateral enlargement and enhancement of the lacrimal glands (black solid arrow), with medial displacement of the globes. Marked thickening of preseptal periorbital soft tissues is also evident (white solid arrow).