

“Doc...what’s wrong with my eyes?”

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A 75-year-old Chinese Canadian male presents with a history of bilateral painless enlargement of a superotemporally located soft lipomatous mass. There is no change in vision and the patient is in generally good health.

The mass was first noted in the right eye about 13 years prior and then appeared in the left eye about five years ago.

On exam:

- Ocular findings reveal early cataracts bilaterally, but is otherwise normal.
- There is no proptosis.
- B-scan ultrasonography, orbital CT scan and serological testing—including thyroid-stimulating hormone, lipid panel and complete blood cell count—are performed.
- Ultrasonography reveals bilateral epibulbar soft tissue lesions. There is possible left medial rectus muscle enlargement.
- CT scan reveals bilateral defects in the orbital septa, with prolapsed orbital fat. Extra-ocular muscles are normal, with an increase in orbital fat.
- All serological testing is normal.

What’s your diagnosis?

This is a case of prolapsed orbital fat. The possibility of an epibulbar dermoid is excluded as the lesions in question were noted to have an onset



Figure 1. Temporal lipomatous mass, left eye greater than right eye.

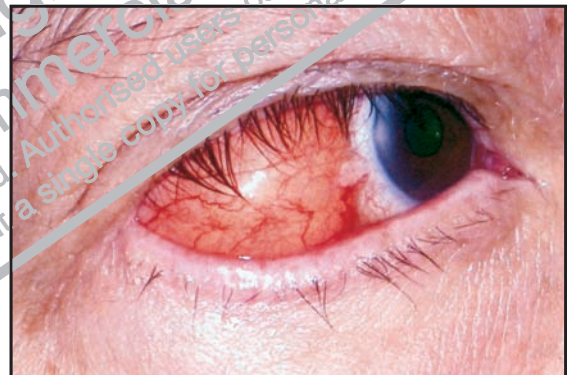


Figure 2. Right eye gaze left—note smooth contour of subconjunctival mass.

late in life. Many such dermoids are also associated with other congenital anomalies.

Thyroid-related orbitopathy is typically associated with finding such as:

- proptosis,
- eyelid retraction,

- conjunctival edema,
- exposure keratopathy,
- exophthalmos and in more severe cases,
- diplopia and
- optic neuropathy.

There is often involvement of the extra-ocular muscles with swelling of the muscle belly and sparing of the tendinous insertion. There may also be an increase in orbital fat and swelling of the lacrimal glands.

Lacrimal gland tumors tend to be associated with a painful enlargement of the lacrimal gland. Often unilateral, such tumors are often associated with proptosis and change in vision. The rate of growth varies and is dependent on whether it is a benign adenoma, or a more aggressive tumor, such as adenoid cystic carcinoma. Painless enlargements of the lacrimal gland may be associated with a history and systemic findings, consistent with leukemia or mumps.

Scleral tumors are typically associated with choroidal melanomas, whereby the intra-ocular tumor has extended through the scleral wall. Orbital lymphomas that occur spontaneously, or are associated with a systemic lymphoma, are often unilateral and associated with proptosis and vision disturbance. There is a salmon patch-like thickening protruding into the conjunctiva.

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Figure 3. Left eye gaze right—note mass appears less vascular and fewer conjunctival vessels are seen.



Figure 4. Right eye gaze left—note well demarcated border to mass.

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