Conventionally, the therapy of symptomatic retinal astrocytic hamartomas would have been treatment by laser, which has the undesirable adverse effect of thermal destruction of the neurosensory retina. Delay of treatment, however, could have resulted in vitreous hemorrhage, a possible late complication of growing retinal hamartomas. Our case demonstrates the successful outcome of a symptomatic astrocytic hamartoma after 1 session of PDT that resulted in the resolution of subretinal fluid, disappearance of tumor vessels, and improved vision.

Stefan Mennel, MD
Norbert Hausmann, MD
Carsten H. Meyer, MD
Silvia Peter, MD

Submitted for Publication: November 4, 2004; final revision received January 5, 2005; accepted January 9, 2005.

Correspondence: Dr Mennel, Department of Ophthalmology, Philipps University, Robert-Koch-Strasse 4, 35037 Marburg, Germany (stefan.mennel@lycos.com).

Financial Disclosure: None.


**Systemic Sarcoidosis Manifested as Unilateral Eyelid Retraction**

Upper eyelid retraction is a common manifestation of thyroid-related orbitopathy with a limited differential diagnosis. We report an unusual case of isolated, unilateral eyelid retraction that was the first manifestation of systemic sarcoidosis.

**Report of a Case.** A 45-year-old African American woman had unilateral, left upper eyelid retraction for 3 years. She denied any history of thyroid disease, trauma, or previous surgery to the eyelids. She was taking no medications, and her family history was noncontributory. Review of systems was unremarkable for a history of asthma, chronic cough, shortness of breath, photophobia, fever, or night sweats. The patient reported some weight gain and fatigue over the preceding few months.

Visual acuity was 20/20 OD and 20/25 OS, and intraocular pressure at applanation was 12 mm Hg OU. Pupillary reactions, ocular motility, and visual fields in response to confrontation were normal. Exophthalmometry was 20 mm OU with a base of 100 mm, with no increased resistance to retropulsion. There was left upper eyelid retraction with 2 mm of scleral show (Figure 1) and left upper eyelid lag on downgaze, with a higher upper eyelid crease on the right. There was no change in the position of the left upper eyelid with manual elevation of the right upper eyelid. In addition, instillation of 2.5% topical phenylephrine hydrochloride in the right eye did not result in change in the eyelid position of either eye. Eversion of both upper eyelids showed no lesions or papillary conjunctivitis. There were no palpable anterior orbital masses, and the lacrimal glands appeared normal. Slitlamp biomicroscopy showed normal anterior segments in both eyes. Fundus examination yielded unremarkable findings.

Results of investigations, including thyroid function tests (total triiodothyronine, free thyroxine, and thyroid-stimulating hormone) and complete blood cell count, were normal. Magnetic resonance images of the head and orbits showed no enlargement of the extraocular muscles or any abnormality in the area of the superior sulcus or levator–superior rectus muscle complex. The lacrimal glands were not enlarged. There were no intracranial abnormalities.

The patient was followed up for 3 months, and results of repeated thyroid function tests were normal. There was no change in the eyelid position. She underwent levator muscle recession with excision of Muller muscle of the left upper eyelid. The

![Figure 1](http://archophth.jamanetwork.com/pdfaccess.ashx?url=/data/journals/ophth/9954/ on 06/18/2017)

©2006 American Medical Association. All rights reserved.
Excised Müller muscle was submitted for histopathologic analysis, which revealed discrete, noncaseating granulomas consistent with sarcoidosis (Figure 2). Special stains disclosed no fungi or acid-fast bacteria. Further investigations showed an elevated angiotensin-converting enzyme level of 101 U/L (reference range, 9-67 U/L) and abnormal liver enzyme levels: γ-glutamyl transpeptidase, 247 U/L (reference range, 2-60 U/L) and alkaline phosphatase, 207 U/L (reference range, 20-125 U/L). A chest x-ray film and abdominal ultrasound were normal. How- ever, a gallium scan showed abnormal uptake in the lacrimal and salivary glands (Figure 3).

Comment. The differential diagnosis of unilateral eyelid retraction is limited and includes thyroid-related orbitopathy, contralateral ptosis, trauma or surgery to the eyelid, lesions in the levator–superior rectus muscle complex, aberrant regeneration of the third cranial nerve, and unilateral use of a sympathomimetic topical drop. The lack at history, clinical examination, or laboratory investigations of any finding suggestive of any of these causes prompted us to submit a specimen for pathologic examination to look for a local cause. The histopathologic analysis and subsequent laboratory investigations (elevated angiotensin-converting enzyme and liver enzyme levels and abnormal gallium scan) confirmed the diagnosis of systemic sarcoidosis.

Ocular involvement of sarcoidosis can manifest as anterior and posterior uveitis, secondary glaucoma, cataract, conjunctival granuloma, lacrimal gland involvement, and optic neuropathy.1 Eyelid involvement in sarcoidosis is rare. In a series of 281 patients, no eyelid involvement was reported.2 In another series of 183 patients with chronic sarcoidosis, only 5 patients had eyelid skin nodules.3 Single case reports describe ptosis due to involvement of the levator–superior rectus muscle complex,4 cutaneous involvement in the form of nodules and papules,5,6 and lower eyelid destructive lesions.7 We could not find a report in the literature of eyelid retraction caused by sarcoid infiltration. Although thyroid-related orbitopathy can occur in patients with systemic euthyroidism, imaging studies in our patient did not demonstrate other local signs of thyroid-related orbitopathy, such as proptosis, limited ocular motility, or enlarged extraocular muscles. The patient reported nonspecific systemic symptoms (weight gain and fatigue) but did not report chest pain, cough, difficulty with breathing, or rash.

This case describes an unusual manifestation of systemic sarcoidosis. Our patient was an African American, in whom the incidence of sarcoidosis is high. It is possible that this manifestation is underreported because most ophthalmologists do not routinely submit a pathologic specimen after surgical correction of acquired, unilateral eyelid retraction. We advocate obtaining a specimen for histopathologic examination in all patients with acquired unilateral or bilateral eyelid retraction who have normal thyroid function test results and no other obvious cause for eyelid retraction.

Raed Behbehani, MD, FRCSC
Karen S. Nipper, MD
Ralph C. Eagle, Jr, MD
Jurij R. Bilyk, MD

Submitted for Publication: September 8, 2004; final revision received November 30, 2004; accepted January 10, 2005.

Correspondence: Dr Bilyk, Oculoplastic and Orbital Surgery Service, Wills Eye Hospital, 840 Walnut St, Philadelphia, PA 19107.

Financial Disclosure: None.