choroidal osteoma. There was a report of new modalities such as photodynamic therapy for choroidal neovascular membranes associated with choroidal osteomas. However, it is too soon to tell whether surgical excision is superior or inferior to other therapies.

Bradley S. Foster, MD
Jessica P. Fernandez-Santay, MD
Thaddeus P. Dryja, MD
Frederick A. Jakobiec, MD
Donald J. D’Amico, MD
Boston, Mass

Corresponding author and reprints: Donald J. D’Amico, MD, Massachusetts Eye and Ear Infirmary, 243 Charles St, Boston, MA 02114 (e-mail: djdamico@meei.harvard.edu).


Prostatic Adenocarcinoma Metastatic to the Anterior Uveal Tract

Prostate cancer rarely metastasizes to the eye. When it does, it usually involves the choroid. The most common primary sites of carcinoma metastatic to the uveal tract are the breast, lung, and gastrointestinal tract. We report a case of prostate carcinoma metastatic to the ciliary body.

Report of a Case. A 76-year-old man had complaints of acute visual blurring in the right eye and dull aching pain. Nine years earlier he was diagnosed as having prostatic adenocarcinoma (Gleason score, 7) with concurrent metastasis to the left fifth rib bone (Figure 1). Because of distant metastasis at diagnosis, he opted to receive hormonal treatment (flutamide and goserelin [Zoladex]). Ocular history was unremarkable. Examination revealed visual acuity correctable to 20/20 OU. Ocular motility and visual field examination findings were unremarkable. Intraocular pressures were within normal limits. Slitlamp examination findings revealed a brown, cohesive mass containing prominent blood vessels projecting into the anterior chamber of the right eye displacing the iris (Figure 2). A microhyphema was present. There was no tumor-cell shedding into the anterior chamber. Funduscopic examination revealed no retinal detachment. No masses were present in the left eye. Ultrasound biomicroscopy (Figure 3) showed the ciliary body...
mass to measure 6 mm in basal diameter and 3 mm in thickness with no evidence of scleral invasion. Differential diagnosis included malignant melanoma, metastatic carcinoma, and primary adenocarcinoma.

After full discussion of treatment modalities with the patient, he rejected the suggestion of undergoing a pretreatment fine-needle aspiration biopsy. Excision of the mass by iridocyclectomy was performed. During surgery, the mass was observed to be whitish-tan (Figure 4). Excision was incomplete because of tumor friability.

Findings on histopathologic examination revealed poorly differentiated carcinoma composed of nonpigmented pleomorphic cells with large nuclei and prominent nucleoli. Mitoses were present (Figure 5). Tumor cells were similar to those in the prior biopsy specimen that led to the original diagnosis of prostatic adenocarcinoma (Figure 1). Immunohistochemical staining revealed diffuse reactivity for prostate-specific antigen and epithelial membrane antigen and nonreactivity for HMB-45 and melan-A (Figure 5). A diagnosis of metastatic prostate carcinoma was made. The patient underwent external beam radiation therapy for residual eye tumor and for new spinal cord metastases detected on systemic evaluation prompted by ocular findings.

Comment. Prostatic adenocarcinoma is the most common form of cancer and the second leading cause of cancer death in men. Its spread can occur by direct local invasion, perineural invasion, and via the bloodstream and lymphatic system. Hematogenous spread occurs primarily to the bones. Distant metastases are seen in the pelvic lymph nodes, liver, and lungs. Although prostatic adenocarcinoma is the second most common tumor in men to metastasize to the orbit, uveal metastases are extremely rare. In a large survey by Shields et al of 520 eyes with uveal metastasis, only 9 patients (2%) had the prostate as the primary site.

Most patients with uveal prostatic metastases have a mean interval between the diagnosis of the primary tumor and uveal involvement of approximately 2 years. The interval was 9 years in our patient, despite having distant metastasis at initial diagnosis. Irradiation has provided effective therapy for choroidal metastasis. Our patient received 4 weeks of ocular external beam radiation therapy subsequent to the surgery for residual tumor and radiation treatment for new skeletal metastases. In general, the survival prognosis for patients with metastasis to the uveal tract is poor. Various series report an overall median survival rate of 7.4 to 10.5 months from the time of ocular diagnosis. All reported cases in the English literature of prostatic adenocarcinoma metastatic to the uveal tract have been to the choroid, except for one that was to the iris. We believe this is the first reported case.
of prostatic adenocarcinoma metastatic to the ciliary body.

Shady El-Zayaty, BS
Susan Schneider, MD
George K. Mutema, MD, PhD
James J. Augsburger, MD
Cincinnati, Ohio

This study was supported by an unrestricted grant from Research to Prevent Blindness, New York, NY.

Corresponding author and reprints: Susan Schneider, MD, Mary Knight Asbury Eye Pathology Laboratory, University of Cincinnati, A-Pavilion, Room 220, 234 Goodman St, Cincinnati, OH 45219-0777 (e-mail: eyepath_sue@hotmail.com).


Figure 5. A, Findings from histopathologic examination reveal the ciliary body mass (hematoxylin-eosin, original magnification ×50). B, The poorly differentiated carcinoma is composed of nonpigmented pleomorphic cells (hematoxylin-eosin, original magnification ×100). C, Immunohistochemical stain showing marked reactivity (brown staining) for prostate-specific antigen by tumor (original magnification ×50). D, Immunohistochemical stain showing nonreactivity for HMB-45 and melan-A (original magnification ×50).

Treatment of Complex Choristoma by Excision and Amniotic Membrane Transplantation

Epibulbar dermoids are choristomas that generally arise from the limbus and are present at birth.1 Based on their configuration and the histologic contents of the lesion, they are classified as dermoids, lipodermoids, or complex choristomas.1,2 They could be either sporadic or associated with systemic anomalies like Goldenhar syndrome, neurocutaneous syndromes, or phakomatosis.3 Though they have almost no independent growth potential, the large lesions can protrude through the lid aperture causing mechanical obstruction to lid closure and can be associated with a high degree of corneal astigmatism, posing a potential threat of amblyopia in infants.1,4 We report 2 rare cases of isolated complex choristomas that were treated successfully by excision and amniotic membrane transplantation.

Report of Cases. Case 1. A 3-month-old girl had a history of a white spot in the left eye that was noticed by her parents on the second day after birth. The child was delivered after a full-term pregnancy with a cesarean delivery. No other remarkable ocular or systemic medical history was elicited. Formal visual acuity measurement was not possible; however, the child could fix and follow a source of light. The fixation was steady, central, and maintained. Ocular motility was full. On external examination there was a soft, vascularized mass involving the left temporal bulbar conjunctiva extending to the temporal half of the cornea and encroaching on the pupil. Findings on the left eye were otherwise unremarkable. Examination findings of the right eye were normal. A diagnosis of dermolidpoma was made, and excision of the mass was advised in view of the risk of amblyopia. The parents deferred...