location did mimic a subperiosteal abscess and this confounded the initial working diagnosis and management. Thus, it is important to include metastatic disease as part of the differential diagnosis along with infectious and inflammatory processes. In patients with a recent history of cancer, orbitotomy becomes crucial for definitive diagnosis as orbital metastasis can present as an inflammatory phlegmon with subperiosteal involvement.[12]

Disclosure: The authors have no proprietary or commercial interest in any materials discussed in this article.

Shawn Nash, DO, Heather Bartels, MS IV, John Pemberton, DO, MBA
The University of Arkansas for Medical Sciences, Little Rock, Arkansas.

Correspondence to:
Shawn Nash, DO: sknash@uams.edu

References

1. Ferlay J, Soerjomataram I, Dikshit R, et al. Cancer incidence and mortality worldwide: sources, methods, and major patterns in GLOBOCAN 2012. *Int J Cancer*. 2015;136:E359-86.
2. Monk B, Tewari K. Invasive cervical cancer. In: DiSaia PJ, Creasman WT, eds. *Clinical Gynecologic Oncology*. 7th ed. Philadelphia: Mosby; 2007. 63-4.
3. Uhrinak AN, Tierney KE, Duncan KL, Matsuo K. Intraocular metastasis from primary cervical cancer: a case report and review of the literature. *Gynecol Oncol Rep*. 2015;12:61-3.
4. Wiegel T, Kleineidam M, Schilling A. Choroid metastasis in a patient with adenocarcinoma of the cervix. A case report. *Strahlenther Onkol*. 1995;171:539-42.
5. Shields JA, Shields CL, Brotman HK, et al. Cancer metastatic to the orbit: the 2000 Robert M. Curts lecture. *Ophthal Plast Reconstruct Surg*. 2001;17:346-54.
6. Holland D, Maune S, Kovács G, Behrendt S. Metastatic tumors of the orbit: a retrospective study. *Orbit*. 2003;22:15-24.
7. Hopkins MP, Morley GW. A comparison of adenocarcinoma and squamous cell carcinoma of the cervix. *Obstet Gynecol*. 1991 912-7.
8. Carlson V, Delcos L, Fletcher GH. Distant metastases in squamous cell carcinoma of the uterine cervix. *Radiology*. 1967 961-6.
9. Gosslee JM, Misra RP, Langford MP, et al. Orbital metastasis of keratinizing squamous cell cervical carcinoma with giant cells. A case report. *Int Ophthalmol*. 2009;29:39-44.
10. Singh K, Kumar V, Bhasker S, Mohanti BK. Carcinoma cervix with metastasis to the orbit: a case report and review of literature. *J Can Res Ther*. 2011;7:357-8.
11. Costantinides F, Luzzati R, Tognetto D, et al. Rapidly progressing subperiosteal orbital abscess: an unexpected complication of a group-A streptococcal pharyngitis in a healthy young patient. *Head Face Med*. 2012;8:28.
12. Barahimi B, Patel A, Bilyk JR. Orbital metastasis mimicking subperiosteal abscess. *Orbit*. 2010;29:165-7.

Can J Ophthalmol 2017;52:e60–e62
0008-4182/17/$-see front matter Published by Elsevier Inc on behalf of the Canadian Ophthalmological Society.
http://dx.doi.org/10.1016/j.jcjo.2016.10.008

Eyelid pilomatrixoma masquerading as chalazion

Pilomatrixoma is a benign skin neoplasm arising from the matrix cells at the base of hair. It was originally described as calcified epithelioma of sebaceous glands, but later the term *pilomatrixoma* was suggested to denote its origin.[1] There are limited reports in the literature on eyelid pilomatrixomas. Most of them involve eyebrows and are seen as subcutaneous, painless nodules. The unusual clinical presentation of this tumour as a chalazion in the current case makes it worth reporting.

Case Report

A 60-year-old male patient came to the hospital because of a slowly growing, painless nodular mass in left upper eyelid for 8 months. The mass was diagnosed as chalazion previously, and conservative treatment with warm compresses, massage, and topical medicine was advised. However, the mass did not regress with this treatment. It gradually increased in size and hardened. The patient had no other systemic complaints or known illness.

On examination, the best-corrected visual acuity was 6/6 OU, and ocular examination was unremarkable. The mass was located on the central pretarsal area of left upper eyelid, involving the eyelid margin, and was causing mild mechanical ptosis (Fig. 1A). It was yellow in colour. The overlying skin appeared normal. There was no destruction of the adjacent eyelid margin structures (Fig. 1B).

On palpation, the mass was nontender, hard in consistency, and could not be moved over the underlying structures. The overlying skin was taut and could not be moved over the mass. The palpaebral conjunctiva appeared normal on eyelid eversion. As the mass was very hard in consistency and was increasing in size, chalazion was an unlikely diagnosis. Therefore, surgical excision with eyelid reconstruction using a direct closure technique was planned.

Histopathological examination (Fig. 2) revealed a well-circumscribed lesion beneath the stratified squamous epithelium composed of peripherally located basaloid cells with scant cytoplasm and frequent mitotic figures. Shadow cells with eosinophilic cytoplasm were seen toward the centre. At places, dystrophic calcification was identified with focal giant cell reaction. These findings were diagnostic of pilomatrixoma.

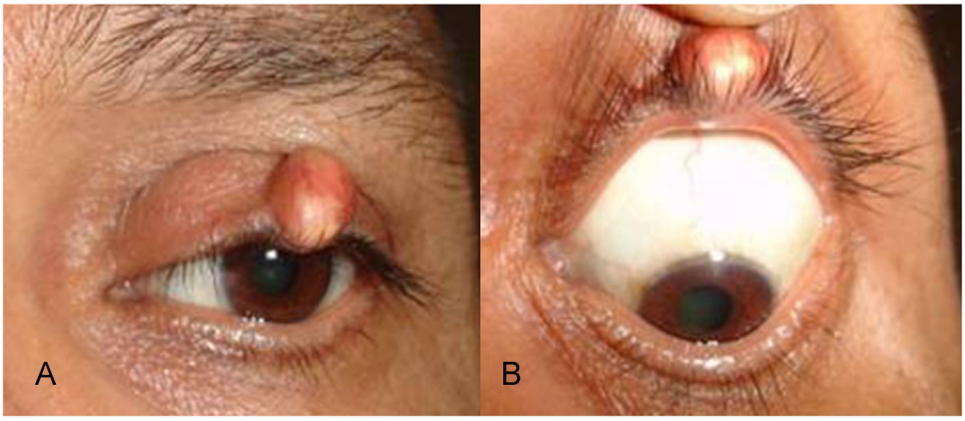

Fig. 1—(a) Clinical photograph of the patient showing an eyelid mass located on the central pretarsal area of the left upper eyelid, involving the eyelid margin and causing mild mechanical ptosis. (b) Clinical photograph (close-up) of the everted left upper eyelid showing preserved eyelid margin structures.

Discussion

Pilomatrixoma has been reported as the most common adnexal tumour of skin among the young. A bimodal presentation is described for pilomatrixomas in general, with the first peak in the first decade and the second peak in the sixth decade. Eyelid pilomatrixoma has been reported to occur in younger children in 39%–73% of cases.[2] More than 75% of cases of eyelid pilomatrixoma were reported to occur before 13 years of age in a study.[3] In our patient, eyelid pilomatrixoma occurred at a much older age of 60 years.

The most common site for these tumours is head and face. Periorbital lesions were reported in only 17% cases in a large series of pilomatrixoma.[2] In the periorbital region, pilomatrixoma usually involves the eyebrows, possibly because of high density of hair follicles. Palpaebral eyelid is less commonly involved, and eyelid margin is usually spared by the tumour. The clinical diagnosis of a pilomatrixoma is usually difficult and they have variably been diagnosed preoperatively[3] as eyelid cysts (mainly sebaceous and dermoid cysts) and rarely as eyelid tumours such as papilloma, keratoacanthoma, sebaceous cell carcinoma, and basal cell carcinoma. Histopathologic diagnosis is based on the presence of basophilic and shadow cells, which may be associated with foreign body giant cells, calcification, and ossification.

We could find only 1 case report in the English literature, wherein an eyelid pilomatrixoma was clinically confused for a chalazion.[4] However, this pilomatrixoma presented in a child and involved the preseptal part of the eyelid and therefore was unlikely to be confused with a chalazion by an ophthalmologist.

In the current case, the tumour was fixed to the underlying tarsus, involved the eyelid margin, and had a yellowish surface. These features favoured the clinical diagnosis of a chalazion. However, the age of the patient, the increasing size of the tumour, and a very firm to hard consistency made us decide against an incision and curettage. An excision was done in order to obtain a histopathological diagnosis.

The colour of the skin overlying pilomatrixoma, unlike in the current case, is usually reported to be normal or have a reddish or bluish discoloration because of hemorrhage.

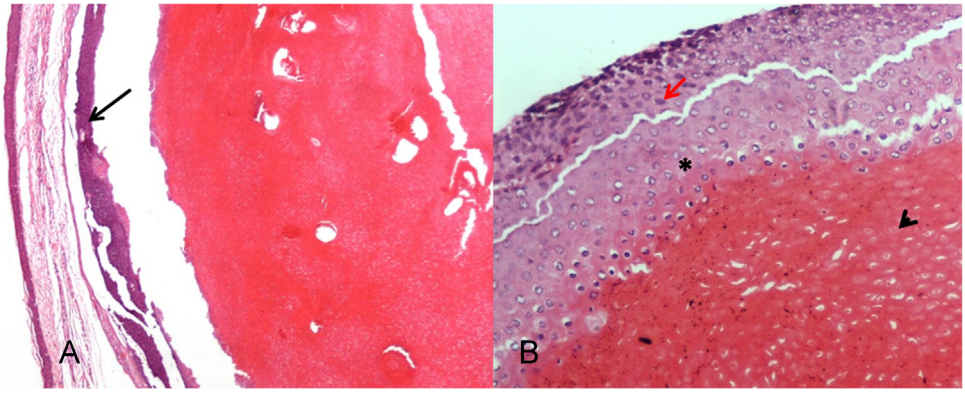

Fig. 2—(a) Photomicrograph showing a large circumscribed lesion beneath the stratified squamous epithelium with basophilic cells at periphery (*arrow*) and eosinophilic material present in the centre (hematoxylin & eosin, original magnification ×100). (b) Photomicrograph showing a high-power view of the proliferating basaloid cells (*red arrow*) and the transition (*) from basophilic cells to eosinophilic shadow cells (*arrowhead*) extending over 6–8 layers (hematoxylin and eosin, original magnification ×200).

Also, eyelid margin is rarely involved by the tumour. To the best of our knowledge, there is only 1 case report in the literature of a pilomatrixoma involving the eyelid margin.[5]

The purpose of this report is to highlight the unusual presentation of pilomatrixoma in an elderly patient as chalazion. We emphasize that the possibility of pilomatrixoma should be considered in the differential diagnosis of a painless, firm to hard, nodular eyelid mass that is progressively increasing in size. In such cases an excision to completely remove the tumour should be done rather than an incision and curettage to confirm the clinical diagnosis and rule out benign tumours that may mimic a chalazion, like pilomatrixoma.

Maya Hada, MD,[*] Rachna Meel, MS,[*]
Seema Kashyap, MD,[†] Cijin Jose, MBBS[*]
[*]Oculoplastic and Paediatric Ophthalmology Services, Dr. Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi, India; [†]Ocular Pathology Services, Dr. Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi, India.

Correspondence to:
Rachna Meel, MS: dr.rachnameel@gmail.com

References

1. Forbis R Jr, Helwig EB. Pilomatrixoma (calcifying epithelioma). *Arch Dermatol*. 1961;83:606-18.
2. Orlando RG, Rogers GL, Bremer DL. Pilomatricoma in a pediatric hospital. *Arch Ophthalmol*. 1983;101:1209-10.
3. Levy J, Ilsar M, Deckel Y, Maly A, Anteby I, Pe'er J. Eyelid pilomatrixoma: a description of 16 cases and a review of the literature. *Surv Ophthalmol*. 2008;53:526-35.
4. Katowitz WR, Shields CL, Shields JA, Eagle RC Jr, Mulvey LD. Pilomatrixoma of the eyelid simulating a chalazion. *J Pediatr Ophthalmol Strabismus*. 2003;40:247-8.
5. Izquierdo-Rodríguez C, Mencía-Gutiérrez E, Gutiérrez-Díaz E, Suárez-Gauthier A. An unusual presentation of a pilomatrixoma in the eyelid. *Arch Soc Esp Oftalmol*. 2006;81:483-6.

Can J Ophthalmol 2017;52:e62–e64

http://dx.doi.org/10.1016/j.jcjo.2016.08.020

Ischemic central retinal vein occlusion in a 14-year-old female

We report a case of central retinal vein occlusion (CRVO) in a 14-year-old healthy female, who initially presented with an inferonasal visual field defect and vision loss OS. The initial serologic tests were only positive for *Bartonella henselae*. The subsequent repeat blood work for hypercoagulability was positive for factor V Leiden. She was treated with oral azithromycin, a series of ranibizumab, and panretinal photocoagulation.

Case Report

A otherwise healthy 14-year-old female was referred for a 3-week history of an inferonasal scotoma and a 2-week history of vision loss OS. Her history was negative for red eye and discharge. There was no pain, fever, lymphadenopathy, or myalgia. There were no known infectious risk factors or exposures. Previous ocular history was unremarkable. The patient has 2 indoor cats but had not suffered any definite scratch.

On examination, vitals were normal, and the patient was afebrile. Ophthalmologic examination revealed a visual acuity of 6/24 OS with a grade 3 relative afferent pupillary defect. She had reduced color perception OS, including a red desaturation of 40% to 50% and Ishihara test score of 10/13. The confrontation field was grossly full OS. The examination of the right eye was unremarkable. The OS anterior segment examination was normal. There was no vitreous inflammation OS. The initial fundus examination revealed a CRVO with disc hyperemia and telangiectasia, disc edema, a partial macular star sparing the area temporal to the fovea, flame-shaped hemorrhages, cotton wool spots, and tortuous veins (Fig. 1A). Macular fluid was present and confirmed by spectral-domain optical coherence tomography (Fig. 1B). Intravitreal fluorescein angiography (IVFA) OS showed hypoperfusion and leakages of the vessels, in addition to hyperfluorescence of the disc and the macula (Fig. 2). The leakage of the vessels might suggest a component of vasculitis.

The patient was found to have immunoglobulin (Ig) G of 1:128 for *B. henselae* on initial investigations. The results of other laboratory studies, including complete blood count with differential, erythrocyte sedimentation rate, cross-reactive protein, random glucose, factor V Leiden, international normalized ratio, protein C, protein S, thrombin time, prothrombin time, antithrombin, lupus anticoagulant, antinuclear antibody titre, cardiolipin antibodies, and lyme serology, were normal.

The patient was followed up for 1 year. She was initially treated with azithromycin 500 mg orally for 1 day and 250 mg orally for 4 days. The intraretinal fluid of the macular OS was treated with monthly intravitreal injections of ranibizumab for 7 months, which solved the problem with the macular fluid (Fig. 1D). Four months after the first visit, a repeat IVFA showed retinal ischemia and 2 series of panretinal photocoagulation were performed. Because of the atypical clinical presentations of *B. henselae* infection, repeat blood work for hypercoagulability was performed at the 9-month visit and was found to be positive for factor V