Journal of Cutaneous and Aesthetic Surgery

Official Journal of Association of Cutaneous Surgeons of India

Highlights of the Issue

- Symposium on Periocular rejuvenation
- Hills and Valleys: Understanding the Under-Eye
- Infraorbital Dark Circles
- Periorbital Injectables: Understanding and Avoiding Complications
- Blepharoplasty Basics for the Dermatologist
- Eyelash Transplantation for the Treatment of Vitiligo
INTRODUCTION

Cysticercosis is a parasitic infestation caused by the larval form of the tapeworm, Taenia solium (T. solium). The common sites for cysticercosis include the brain, eyes, and skeletal muscle. Ocular or adnexal involvement is commonly seen with the commonest ophthalmic site being subretinal space and the vitreous cavity. However, only a handful of cases of eyelid cysticercosis have been reported in the past. We report a rare and unusual case of isolated eyelid cysticercosis in a middle-aged woman masquerading as an asymptomatic slowly growing subcutaneous painless mass in the left eyelid which was presumed to be a benign skin mass, a cyst of appendageal origin such as an epidermoid cyst. This case highlights the ubiquitous nature of cysticercosis in tropical countries and the need for a high degree of suspicion while surgically treating subcutaneous masses. We would additionally emphasize the need to rule out neurocysticercosis in such cases.

KEYWORDS: Cysticercosis, epidermoid cyst, eye, eyelid, eyelid mass, neurocysticercosis

CASE REPORT

A 55-year-old female presented with swelling on the left lower eyelid. She was apparently asymptomatic a year ago when she noticed a small swelling near the left lower eyelid which had progressed to the present state. She sought cosmetic correction of the small mass, as she felt it appeared unsightly. On examination, the mass was painless, spherical, nontender, cystic, and appeared subcutaneous in location and measured 12 mm in diameter [Figure 1a]. Her ophthalmic evaluation was otherwise normal. She had primarily sought an opinion for excision of the mass for cosmetic reasons that were performed under local anesthesia. The cystic mass was excised...
en masse and sent for histopathological examination. While located under the dermis, the mass was found to be separate from the eyelid tarsus and in close relation with the fibers of orbicularis oculi. The wound was sutured with interrupted 6–0 Vicryl sutures in layers: The first layer being orbicularis oculi followed by subcuticular sutures of the skin to avoid a scar. On gross examination the mass was a pea-sized greyish white cyst. Microscopic examination was consistent with a diagnosis of cysticercosis: the larva could be visualized within a cyst that showed three discrete layers: An outer cuticular layer, a middle cellular layer, and an inner fibrillar layer that could be seen in a typical racemose pattern [Figure 2]. A magnetic resonance imaging (MRI) of the brain and orbit showed no abnormality. Postoperatively, on the advice of an infectious disease specialist, who found no systemic involvement on the basis of examination and serology, the patient received a course of oral albendazole 400 mg for 5 days. At 1 year follow-up visit, no local or systemic recurrence was seen; the patient remained asymptomatic and the wound had healed well, except for minimal pigmentation with no trace of a scar [Figure 1b].

**DISCUSSION**

In the case of cysticercosis due to *T. solium*, the incubation period can vary, and infected people may remain asymptomatic for years. In some endemic regions (particularly in Asia), infected people may develop visible or palpable subcutaneous nodules. Gupta et al. have reported the use of ultrasonography to diagnose subcutaneous cysticercosis that showed characteristic low reflective cysts and high reflective scolices inside.[4] Fine-needle aspiration cytology may additionally be an effective mode of diagnosis of subcutaneous cysticercosis.[5] The clinical relevance of such subcutaneous lesions itself may be less, however, they may forebode the presence of cysticercosis of the central nervous system.[9] Computed tomography (CT) imaging and MRI can confirm the diagnosis and additionally help to rule out neurocysticercosis.[6] This is of further relevance because medical treatment of cysticercosis before screening for central nervous system involvement may cause a paradoxical reaction that may impair the outcome of cysticercosis during the treatment with antihelminthic drugs.[7] It has been reported that tissue diagnosis is not essential for initiating treatment and in addition diagnosis of cysticercosis is based mainly on orbital imaging because of its highly specific appearance.[8] However, in our case, the unusual location, misleading history, and atypical appearance precluded us from considering cysticercosis as a possible diagnosis. In their series, which is one of the largest compilations of cases of orbital and adnexal cysticercosis, Rath et al. reported only one case of eyelid cysticercosis, which was of the upper lid. While reviewing the literature, they have reported that the eyelid is the least common site affected in the eye.[9] Common differential diagnoses for a longstanding cystic eyelid mass include dermoid cyst, sebaceous cyst, epidermoid cyst, neurofibroma, and a lipoma.[10]

From the treatment perspective, surgical removal is the gold standard for subconjunctival and eyelid cysticercosis. Medical therapy is the recommended treatment for the extraocular muscle form and orbital cysticercosis.[8]

**CONCLUSION**

We present a rare case of an isolated eyelid cysticercosis, masquerading as a benign eyelid mass, perhaps an epidermoid cyst, which may be a presenting sign of severe disease in an endemic area. Such patients should be evaluated thoroughly for underlying systemic
disease. While a simple excision may suffice for cosmetic correction in such cases, isolated eyelid cysticercosis are uncommon and require a high degree of clinical suspicion and accurate histopathological evidence to diagnose.

**Declaration of patient consent**
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

**Financial support and sponsorship**
Nil.

**Conflicts of interest**
There are no conflicts of interest.

**REFERENCES**