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Case report

Primary lacrimal canaliculitis – A clinical entity often misdiagnosed

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Abstract

Purpose: Primary lacrimal canaliculitis (PLC) is a unique disorder which often gets misdiagnosed by the general as well as speciality-trained ophthalmologists. Elderly patients with history of chronic or recurrent epiphora with discharge, often get mislead towards chronic dacryocystitis. The aim of our report is to discuss the misleading diseases in our PLC patients and to revisit this hidden disease.
Methods: The patients of PLC who were previously misdiagnosed were studied. The clinical history, presenting clinical features, misdiagnosis, and final management of the patients is described.
Results: There were 5 misdiagnosed female patients. A history of chronic redness, watering, discharge, and medial canthal region edema lead to the misdiagnosis of chronic dacryocystitis in 3 (60%) and medial marginal chalazion in 2 (40%) cases. Slit-lamp examination revealed localized hyperemia (n = 5), classical pouting of lacrimal punctum (n = 3), and expressible purulent discharge (n = 3). Two patients without punctum pouting had an explicit yellowish hue/discoloration of the canalicular region. Our patients had a mean 4 visits before an accurate diagnosis. Three-snip punctoplasty with canalicular curettage was performed in three while two were managed conservatively. At last follow-up, all patients were symptom-free with punctum and canalicular scarring in three, who underwent surgery.
Conclusion: PLC is a frequently misdiagnosed clinical entity which delays the initiation of appropriate treatment. A succinct magnified examination of punctum and canalicular region can provide sufficient clues pivotal for accurate diagnosis.

Keywords: Primary lacrimal canaliculitis; Misdiagnosis; Lacrimal canaliculus; Lacrimal punctum; Chronic dacryocystitis

Introduction

Lacrimal canaliculitis is a suppurative or non-suppurative inflammation of the canalicular tract.[1] A gender preponderance for females and location propensity for inferior canaliculus is often observed.[1,2] Etiologically, suppurative or primary lacrimal canaliculitis (PLC) is mainly caused by Staphylococcus, Streptococcus, and Actinomyces species.[2] Secondary lacrimal canaliculitis (SLC) is associated with the usage of punctum-plugs and lacrimal stents. Hence, this specific history helps ophthalmologists reach an early diagnosis of SLC which is most commonly (46%) caused by *Pseudomonas aeruginosa*.[3,4]

The chief complaints associated with canaliculitis such as watering, intermittent discharge, and pain often mimic those seen in chronic dacryocystitis. Clinically, presence of medial canthal region edema and expressible purulent discharge further increases the chances for its misdiagnosis as chronic dacryocystitis. In literature, this rate of clinical misdiagnosis ranges from 45 to 100%.[5,6] Prominent local features like pouting of punctum, yellowish hue/discoloration of canalicular region and localised hyperemia point specifically towards lacrimal canaliculitis.

In this article, were report five clinically misdiagnosed patients of PLC and highlight its classical clinical features. We

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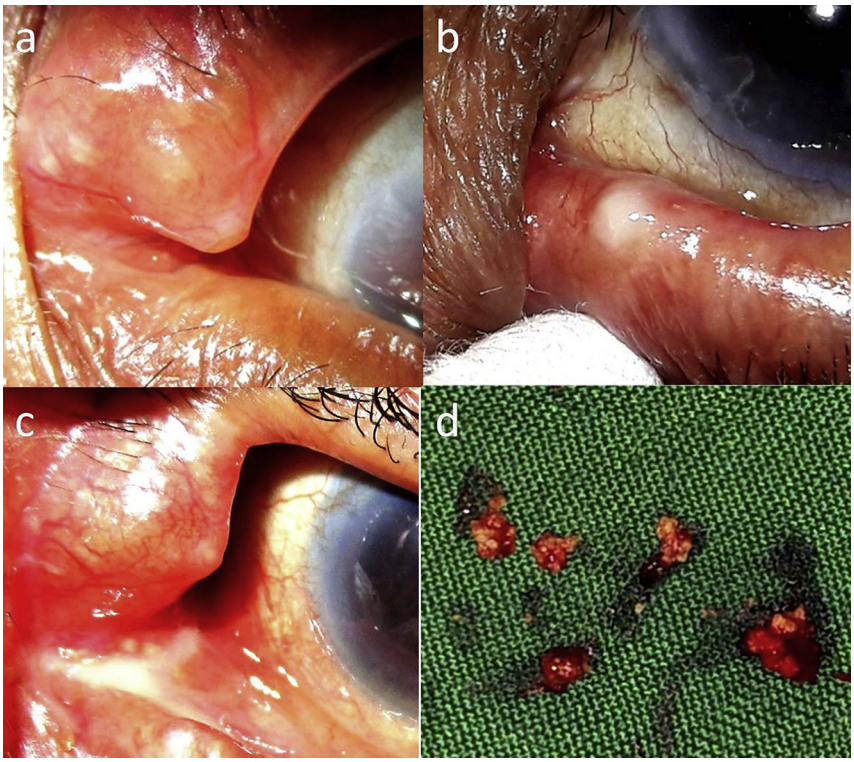

Fig. 1. Characteristic clinical features of primary lacrimal canaliculitis (PLC): a. Left superior punctum showing characteristic pouting. Prominent local vasculature and yellowish hue/discoloration of canalicular region is distinctively seen. b. The left inferior punctum shows typical whitish granular discharge expressed with a cotton-tip applicator. Punctum pouting and inflamed canalicular region is appreciable. c. Superior inflamed punctum and canalicular region with whitish granular discharge over caruncle. d. Multiple clumps of sulphur-like granular concretions after 3-snip punctoplasty and canalicular curettage.

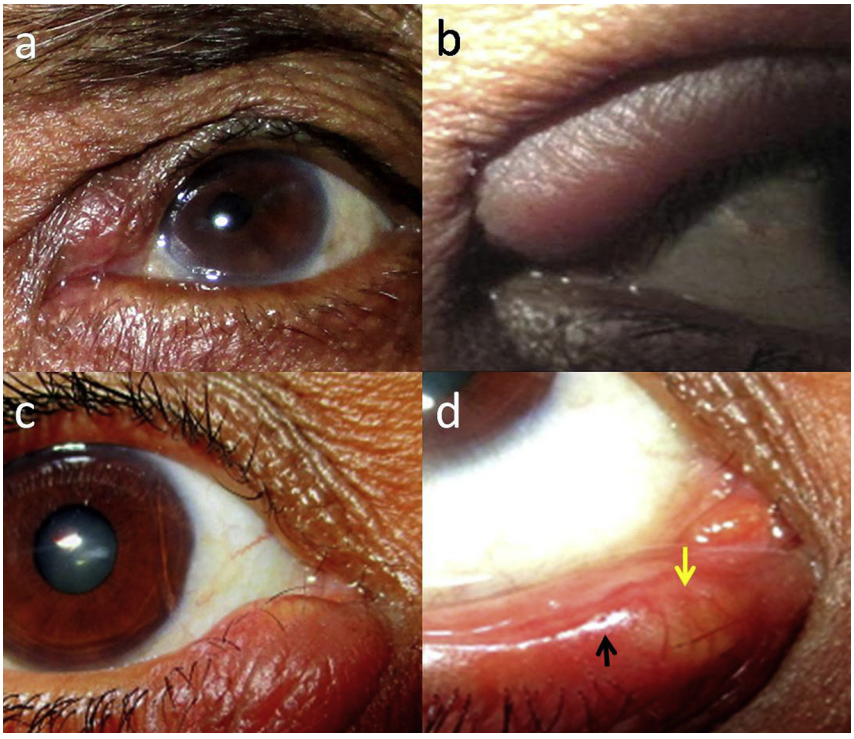

Fig. 2. Misdiagnosis of primary lacrimal canaliculitis (PLC): a. (Misdiagnosed-chronic dacryocystitis) Left superior inflamed punctum and medial canthal region but the edema is above medial canthal tendon with negative 'regurgitation on pressing lacrimal sac' region (ROPLaS). b. (Misdiagnosis – superior medial chalazion) The edema of eyelid extends medially in the non-ciliated or canalicular region of eyelid, making external or internal hordeolum a lower possibility. c. (Misdiagnosis-inferior medial chalazion) The erythema and edema over canalicular region with yellowish hue/discoloration. d. On eyelid eversion, localised erythema and yellowish hue/discoloration (yellow arrow) of canalicular region is seen prominently. The punctum (black arrow) is present laterally and appears stenosed.

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