

GENERAL OPHTHALMOLOGY

A Case of Absence of Meibomian Glands in the Lowerlids of a Middle-Aged Female in Abuja, Nigeria

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Background: Evaporative dry eye disease results from the reduction in the thickness or quality of the lipid layer. Absence of the Meibomian gland is a rare cause of evaporative dry eye disease.¹ This is a case report of the absence of Meibomian gland in a Nigerian woman.

Case Report: A 45-year-old lady, a known patient of our clinic who had been receiving treatment for allergic conjunctivitis for 5 years. She had been complaining about feeling of dryness in her eyes and foreign body sensation for about 2 years. Her ocular surface disease index was 12.5.

She had no Meibomian orifices on her lower lid margins but the upper lid orifices were present in both eyes, with normal expression of fluid when expressed. There were 23 and 25

Meibomian orifices opening in the upper lids respectively, the Meiboscore in both upper lids was 0 and in both lower lids was 3, the tear film breakup time was 2 seconds in both eyes, the Schirmer's test I was 5mm and 7mm, the Schirmer's test II was 3 and 6 mm in the right and left eye respectively. The conjunctiva was normal, the cornea in the right eye had punctate epithelial erosions in the inferior third of the cornea, and the left cornea was not staining. Other findings in the anterior and posterior segments were normal. Anterior segment optical coherence tomography (OCT) pictures of the everted lids showed Meibomian glands superiorly but they were absent inferiorly. She was placed on Gutt Sodium Hyaluronate 0.2% 3 hourly and Hypromellose Ophthalmic Gel 0.3% enriched with Carbomer 980 USP 0.25% at night. She reported that her symptoms resolved while on these medications.

Discussion: Congenital absence of the Meibomian gland is a rare condition.¹ Meibomian oil reduces evaporation by 4-20-fold, this buttresses its importance in the tear film.² Our patient had been on treatment for allergic conjunctivitis for 3 years prior to detection of the absence of the Meibomian glands, which occurred after she complained of dryness. The late onset of her complaint of dry sensation could be because the upper lid glands compensated prior to this time. She also

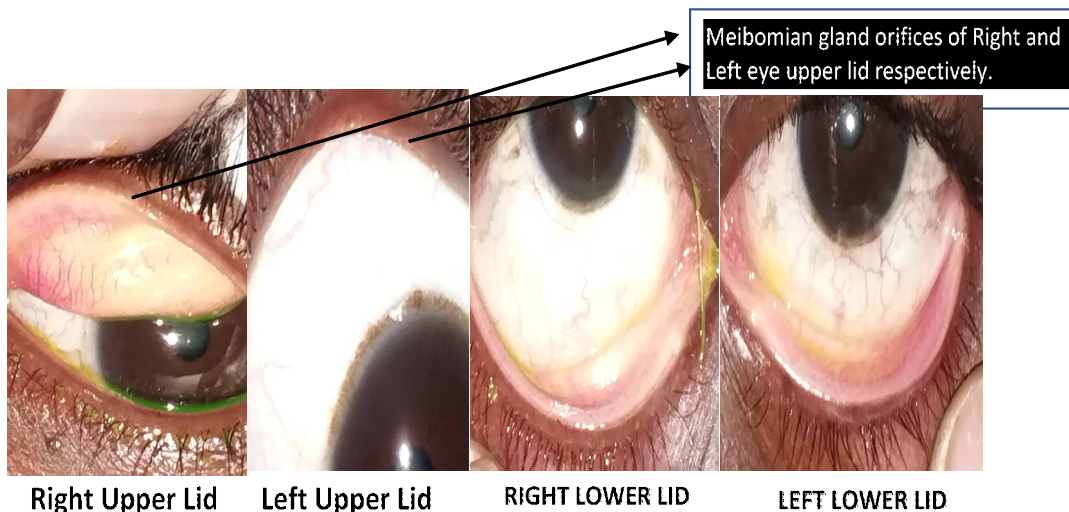


Figure 1: The presence of Meibomian gland orifices in both upper lids and absence in both lower lids.

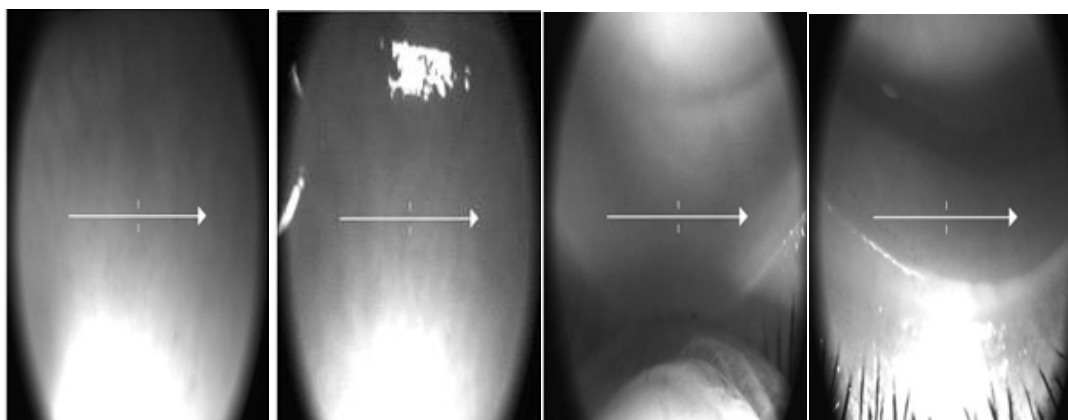


Figure 2: OCT Anterior Segment Meibography of both upper lid showing normal Meibomian gland structure and absence in the both lower lids respectively.

had co existing allergic conjunctivitis and this can also present with tear film instability. There have been few reports of congenital absence of the Meibomian gland, and it has been reported to be associated with ectrodactyly ectodermal dysplasia, cleft lip-palate, and hypohidrotic ectodermal dysplasia.^{3,4}

Conclusion: Although congenital absence of the Meibomian gland is rare, it can present late with dry eye symptoms. Ophthalmologists should examine the Meibomian orifices of all patients in order to identify those with this abnormality early. The report also highlights the importance of anterior segment OCT in evaluating the Meibomian gland.

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Review of Bottle Cap Eye Injuries at Federal Medical Centre, Asaba

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Background: Bottle cap injuries are an important cause of unilateral injury and blindness.^{1,2} Flying bottle caps have been implicated in a majority of cases as against bottle explosions.³ In Nigeria Coca-cola® bottles account for 50-100% of such injuries, followed closely by beer bottles.^{3,4}

Aim: To highlight the presentations and outcomes of bottle cap eye injuries at FMC, Asaba over a 2-year period.

Methods: This was a retrospective study of 4 eyes of 4 patients who presented at the eye clinic between 2020 and 2022, and were diagnosed with a form of bottle cork injury. Information obtained were age, sex, occupation, laterality, aetiological event, type of agent, visual acuity, and other examination details at presentation and follow up, and treatment

Results: Three of the four patients (75%) were females aged 11-35yrs. The only male was an 8-year-old boy. Mean age was 17 years. All ladies were injured while packing chilled carbonated drinks for sales. The right eye was affected in