The Subtle Signs Of Trachoma

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Trachoma in a clinical setting of signs without symptoms is a challenge to identify. Imagine a patient who wants a multifocal IOL for cataract surgery and the subtle signs of trachoma are missed. Eyelid evaluation is most underrated aspect of cataract surgery with disastrous complications.

Trachoma risks are higher older individuals who have difficulty in bathing themselves especially in winter or women who don't wash hair frequently and miss eyelashes causing lower lid hygiene in paradoxically middle to high socio economic groups. In these individuals the classical signs of Trachoma like Herbert's pit and sub tarsal scarring are very rare. It is more common to see discharge on eyelid and other eyelid changes. Eye cosmetics applied with unwashed bare hands or shared between family also increase risk. Systemic factors like diabetes, old age, dementia, deafness can make treatment of trachoma difficult or refractory.

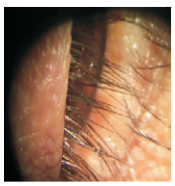
During clinical examination it is essential to note the position of eyelashes and skin colour. The discharge on eyelids in trachoma can be at the base of eyelashes and can be skin coloured needing high degree of clinical suspicion to identify. Discharge can be scarce and gets missed if slit lamp magnification is not increased. Misdirection of eyelashes is very common which needs lower slit lamp magnification to identify. Slight degree of misdirection which brings eyelashes together is common as compared to gross trichiasis. Rubbing of eyelashes against conjunctiva or cornea can lead to paracentral macular grade opacities and chronic changes on conjunctiva due to irritation. Thinner eyelashes especially near the edges of eyelids get easily misdirected as compared to thicker central ones. Opacities are frequently macular grade needing lower and diffuse slit lamp magnification with higher illumination to diagnose. These patients frequently seek lubricants for irritation. Infection of the follicle of eyelash can give rise to a partially depigmented eyelashes with a black tip and whitish base. Poliosis is complete depigmentation and has low specificity as it can be associated with ageing. Compared to Poliosis partial discolouration of eyelash is very common with trachoma. I prefer to cut eyelashes if partially discoloured or covered by non resolving discharge before surgery as I consider them infected.

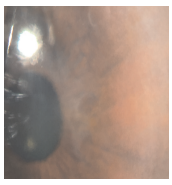
Another important aspect of eyelid evaluation is health of posterior lid margin and the thickness of lid margin. Too thick margins with loss of sharpness of eyelid margin can be associated with mebomianitis or Trachoma. Co-existing mebomianitis might increase lipid secretion during surgery after applying speculum as patient presses eyelids against speculum. The release of lipid which can also carry bacteria on eyelid allowing them to enter eye during surgery. Pressing of eyelids before surgery might express the lipid out of eyelids. Such individuals need pressure on eyelids with cue tip to diagnose mebomianitis just as we use roplas to diagnose chronic dacryocystitis.

A regressed pannus is identified by looking for asymmetrical thickening of corneal arcus at superior limbus. This is due to extra lipid deposition by pannus. On regression corneal blood vessels are very difficult to identify. Conventional teaching divides signs of trachoma into three aspects of sequela, acute or chronic disease. In clinical practise it is common to see a mixture of sequela with chronic signs in patients who do not have redness. Treatment is with azithromycin eye ointment applied three to four times for 3 weeks. It is essential to stress lid hygiene or explain lid scrub to patients as just application of ointment does not clear the eyelash infection which can be in the form of cylindrical discharge. I also prefer to cut eyelashes so that lid base is accessible to ointments and scrubs.

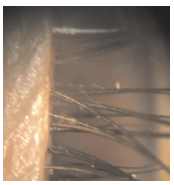
References

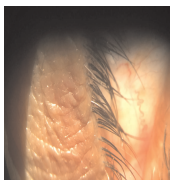
1. External Disease and Cornea. Basic and Clinical Science Course, Section 8, 2011–2012. San Francisco: Am AcadOphthalmol, 2011.
2. Mariotti SP, Pascolini D, et al. Trachoma: Global magnitude of a preventable cause of blindness. Br J Ophthalmol 2009;93:563–568.

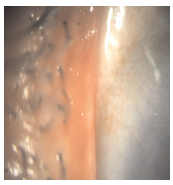

Discharge on eyelashes

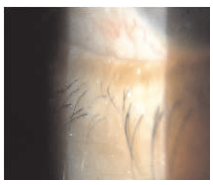

Macular grade corneal opacity


Mebomianitis


Misdirection of eyelashes


Partially Discolored Eyelashes


Regressed Pannus


Tylosis and mebomian gland abnormalities