Steroid abuse and Vision loss in Pediatric Population with Vernal Keratoconjuctivitis (VKC): An Emerging Public Health Problem

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Vernal Keratoconjuctivitis (VKC) is a bilateral chronic inflammatory IGE mediated disorder with symptoms of ocular itching, watering, foreign body sensation and mucoid stringy discharge[1]. It a disease of pediatric population with seasonal recurrence, worse during summers and follows a chronic course with acute exacerbations and remissions[2]. It has a much a higher incidence in hot and dry climates such as Pakistan and India, making it one of the most common pediatric ocular disorders seen by local Ophthalmologists[3,4].

VKC management involves avoiding specific triggers, topical use of lubricants, antihistamines, mast cell stabilizers, non-steroidal anti-inflammatory agents, and periodic use of mild topical steroids[1]. Up to 85% of patients use topical steroids at some point in the course of the disease and inadvertent use of potent steroids may result in steroid induced glaucoma (SIG) and blindness[5].

In Pakistan, we do not have any data on prevalence of Steroid induced glaucoma in VKC patients, but studies in India have shown inadvertent use of strong topical steroids leading to glaucomatous visual loss in pediatric population[1,6].
Sen et al did a retrospective chart review of 1423 children with VKC[1]. 17% (240) were on topical steroid therapy without any prescription, and 3% developed steroid induced glaucoma[1]. Another study of 600 VKC patients (360 pts on topical steroids) observed 4.2% patients had SIG[6].

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We do see VKC patients coming from rural areas with undiagnosed SIG and/or cataracts with a history of prolonged use of potent topical steroids in the form of Betamethasone and Dexamethasone eye drops prescribed either by pharmacy, quacks, or general practitioners. They present very late with irreversible visual loss.
In Pakistan, regulations have further facilitated the unregulated use of topical steroids without Ophthalmologist supervision. Potent topical steroids are relatively inexpensive and easily available. In India, sale of topical steroids is estimated to be 20 times that in the United States[7].
In our country, patients are not adequately counseled about the adverse effects of long-term steroid and the potency of different steroids.

There is a need of community-based studies to determine prevalence of VKC, steroid use, and incidence of SIG. We need stricter laws for dispension of topical steroids with proper validated prescriptions. The government should follow an aggressive course to tackle this issue. There is a need to educate people through television, radio, social media, and especially local mosques in peripheral settings. General practitioners need to be sensitized about this adverse complication and asked to avoid prescribing strong steroids and appropriately refer patients to Ophthalmologists. There is a lack of well-structured management guidelines for treatment due to lack of a system for grading and severity. This requires teamwork and collaboration. We as Ophthalmologists should ensure that an IOP measurement and fundus exam is done every 2-3 months (do no focus on isolated anterior segment exam) to rule out any steroid induced complications along with counselling.

There is a dire need of collaboration between Ophthalmologists, researchers, community leaders, and government to prevent steroid misuse and save this country from an avoidable cause of irreversible blindness.

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