

POSTERIOR SUBCAPSULAR CATARACT FOLLOWING PROLONGED ORAL STEROID USE FOR ALLERGIC CONJUNCTIVITIS: A CASE REPORT

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ABSTRACT

Objective: We present a case of a 27-year-old female trader with a month history of bilateral painless progressive blurring of vision which was worse for distant vision after a 4-year daily use of oral prednisolone (10 mg) prescribed by a non-ophthalmologist. The conventional treatment for ocular allergy includes avoidance of allergens, topical antihistamines, mast cell stabilizers, topical corticosteroids, oral antihistamines, nonsteroidal anti-inflammatory drugs, and corticosteroids. However, inappropriate steroid use can be associated with undesirable complications.

Methods: A case report of a 27 year old female trader who presented with blurring of vision associated with glare at night. There was history of daily intake of oral prednisolone for 4 years for treatment of allergic conjunctivitis.

Results: Examination revealed posterior subcapsular cataract due to prolonged steroid use. Steroid was gradually tapered and withdrawn over a week and the patient was refracted with good visual improvement.

Conclusion: Steroids should be reserved for severe cases and when utilized should be used as pulsed or short course therapy after baseline examination by Ophthalmologists.

Keywords: Cataract, Steroid, Treatment, Visual, Impairment.

INTRODUCTION

Steroids are drugs of relevance in ophthalmic care due to their anti-inflammatory properties. Their routes of administration vary with the desired effect and severity of condition under treatment. They can be used as topical, subconjunctival, subtenon, intravitreal, intramuscular, intralesional, or intravenous preparations. Inappropriate or prolonged use can be associated with undesirable complications. The rationale for this case report is to discourage the inappropriate use of steroids and shows that prolonged steroid use can cause complications.

CASE REPORT

We present a case of a 27-year-old female trader with 1 month history of bilateral painless progressive blurring of vision which was worse for distant vision. There was no preceding history of ocular trauma. There was a history of recurrent itching which had been on for about 4 years with associated tearing, redness, and foreign body sensation. The patient also reported a history of glare at night and diplopia on straight gaze but had no history of past spectacle wear or surgery. She was not a known diabetic, asthmatic, or peptic ulcer disease patient. She reported the use of oral prednisolone (10 mg) daily for about 4 years up till the time of presentation. The drug was said to have been initially prescribed by a medical practitioner for a week duration, but she continued to procure the same over-the-counter when she observed it helped to alleviate her symptoms. There was no family history of blindness or any other eye disease. The patient neither smoke cigarette nor drink alcohol.

Examination revealed a young adult woman with no pallor, jaundice, or sickle cell habitus. Unaided visual acuity was 6/6⁻² on the right eye and 6/9⁻³ on the left eye. Other ocular findings were essentially normal apart from the presence of fine tarsal papillae and opacities in the posterior subcapsular region (Fig. 1)

Intraocular pressure measured with Goldmann applanation tonometer was 12 mmHg in either eye. An assessment of posterior subcapsular

cataract secondary to prolonged steroid with allergic conjunctivitis was made. Steroid was gradually tapered and withdrawn over a week. The patient was commenced on gutt antazoline with tetrahydrozoline to be used 4 times daily. The result of the random blood sugar done was 4 mmol/L. The refraction result revealed visual improvement to 6/5 with plano/-0.50 axis 90 in both eyes.

DISCUSSION

Allergies are usual causes of conjunctivitis [1]. Allergic conjunctivitis is a common disorder as it affects about 40–80% of the world population of allergic diseases [2]. Its prevalence has been observed to be on the increase in today's industrialized world [3]. The conventional treatment for ocular allergy includes avoidance of allergens, topical antihistamines, mast cell stabilizers, topical corticosteroids, oral antihistamine [4], nonsteroidal anti-inflammatory drugs, and corticosteroids. A few cases may require surgical intervention, especially in severe cases with corneal complications such as ulcer or opacities [5]. A potential therapeutic drop was reported by Satyam *et al.*, 2014, but it was still at the trial phase in animals [6]. Steroid use in cases of allergies is due to its anti-inflammatory properties due to its ability to prevent the formation of arachidonic acid by blocking both the cyclooxygenase and lipoxygenase pathways. However, pulsed regimen is recommended to minimize the adverse effects of drugs. This patient had symptoms suggestive of allergic conjunctivitis on account, of which she was seen by a medical practitioner who was not an ophthalmologist. The practitioner gave a prescription for oral Prednisolone without first making recourse to topical antihistamines, mast cell stabilizers, or even topical nonsteroidal anti-inflammatory drugs. The mainstay of the management of ocular allergy involves the use of antiallergic therapeutic agents such as the antihistamines and mast cell stabilizers [7]. Our patient after exhausting the short course of prescribed oral prednisolone continued on self-medication for over 4 years. The risk of ocular adverse effects makes it necessary to use steroid for short period like 2 weeks [8]. Possible ocular adverse effects of prolonged steroid use include elevated intraocular pressure and cataracts. This makes it necessary to have a baseline eye examination

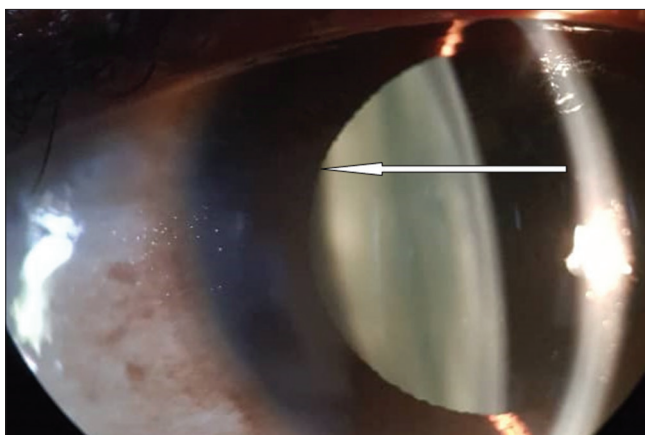


Fig. 1: Posterior subcapsular cataract due to inappropriate steroid use

before commencing steroids when required on a long-term basis. This patient presented with glare at night and diplopia on straight gaze which was observed to be as a result of opacities in the posterior subcapsular region of the lens. Steroid-induced posterior subcapsular cataract is a documented effect of prolonged use of glucocorticoids [9,10]. The mechanisms for this opacification are not quite known but among those proposed are the effect of steroids on the balance of ocular cytokines and growth factors [10]. The vision reduction in this patient was more of quality reduction as the level of vision reduction was not so marked since visual acuity of 6/6⁻² on the right eye and 6/9 on the left eye as well as the presence of diplopia on straight gaze. The level of visual acuity improved with optical correction with corrective lenses, but the quality of vision will be assessed during subsequent follow-up clinic visits.

CONCLUSION

Allergies are known common causes of conjunctivitis. Treatment of allergic conjunctivitis should be stratified with antihistamines and mast cell stabilizers as the first-line drugs. Steroids should be reserved for severe cases and when utilized should be used as pulsed or short

course therapy after baseline examination by ophthalmologists. Ophthalmologists and allergists should be consulted when there are symptoms suggestive of ocular allergy. Steroid drugs should be added to the list of prescription medications due to the potentials of abuse and risk of ocular adverse effects among others as depicted in this our patient.

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Nil.

CONFLICTS OF INTEREST

We declare that there are no conflicts of interest from any of the authors.

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