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Volume 1 • Issue 3 • 2017

Case Report

Ophthalmology and Vision Science

ISSN: 2573-4997

Steroid Skin Ointment Induced Central Serous Retinopathy- A Case Report

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Received: July 30, 2017; **Published:** August 22, 2017

Volume 1 Issue 3 August 2017

Introduction

Central serous chorioretinopathy (CSCR) is an idiopathic disorder characterized by a localized serous detachment of the sensory retina at the macula secondary to leakage from the choriocapillaris through focal, or less commonly diffuse, hyper permeable Retinal Pigment Epithelial(RPE) defects [1,2]. Most cases resolve spontaneously, but recurrences are known and may lead to permanent loss of vision. Imperfectly identified risk factors include psychological stress, type a personality, steroid administration, Cushing syndrome, systemic lupus erythematosus and pregnancy [3]. Only a few cases of CSCR developing after topical application of steroid skin ointment have been reported [4,5]. We report here a case of CSCR following the use of betamethasone skin ointment. Because the patient and the clinician did not suspect the use of topical skin ointment to be related to his visual problem, the relevant history was missed initially.

Case Report

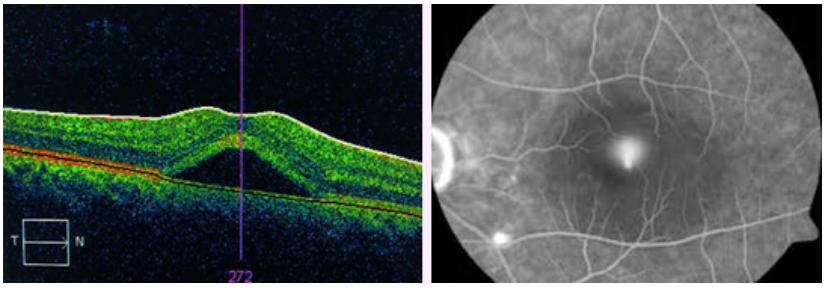
A 35 year male presented with the complaint of diminution of vision and brightness in left eye since 2 months. Patient didn't give any history of systemic disorder, stress or use of any medication.

On examination his best corrected visual acuity OD was 6/6 and OS was 6/36. Anterior segment was normal. Pupils were normal in size, equal on both sides and reacting to light. On fundus examination OD was normal. OS optic disc was normal but the Macula revealed a well circumscribed round elevation of about 2DD in size obliterating the foveal reflex. On testing with Amsler grid no abnormality was found.

A differential diagnosis of occult Choroidal neo vascular membraine (CNVM), inflammatory Cystoid Macular Edema (CME), atypical CSCR was considered.

Fundus Fluorescein Angiography (FFA) showed a classical ink blot fluorescence pattern and RPE window defects. Optical coherence tomography (OCT) showed optically empty neurosensory elevation and RPE detachment, confirming the diagnosis of CSCR.

The patient was treated with double frequency ND yag green laser (P 100MW, ss50micron, duration 100 ms, n = 4) to seal the leakage point.



At follow up visit after 1 month, CSCR had resolved completely with vision improvement up to 6/9.

He presented back after 2 months with similar complaints and vision 6/18 in OS. A repeat FFA was done to confirm the diagnosis of recurrent CSCR. This time after intensive questioning, the patient admitted that he was using betamethasone ointment for facial skin problem (melasma) since 3-4 years. Diagnosis of steroid induced CSCR was made. After consultation with dermatologist, the patient was advised to stop using steroid ointment. We decided to adopt the line of management as that of wait and watch without any active treatment. The CSCR resolved within 2 weeks with vision improving to 6/9. The patient is being followed up closely since 8 months and there is no report of recurrence of CSCR and his vision is maintained at 6/9.

Discussion

Central serous chorioretinopathy (CSCR) is attributed to the disruption of the ionic pump of the retinal pigmented epithelial cells (RPE) or hyper permeability of the choroidal vasculature.

There are various causes of CSCR, including stress, type a personality and treatment with corticosteroids. However, it may also be idiopathic.

Steroids are known to cause CSCR probably by increasing cAMP in RPE cells, and hence changing the ionic pump function or by altering the permeability of blood aqueous barrier and disrupting the outer blood retinal barrier [6]. It is reported in association both with endogenous Cushings and with exogenous steroid administration. It may occur after systemic, inhaled or intraepidural steroids [7]. However there are very few cases reported after use of topical skin ointments.

Treatment is usually expectant together with the discontinuation of steroids as seen in this patient.

Conclusions

CSCR can result after use of topical steroid skin ointments. Since there is a rampant use of steroid containing skin ointments, such a possibility as a probable cause of CSCR should be kept in mind. Moreover, patients may be hesitant to admit using such treatments many of which are available over the counter, so a pertinent history taking is essential as was missed by us in the first visit so as to follow the correct line of management.

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