Central Serous Chorioretinopathy after Application of Topical Corticosteroid

I. Essamlali, M. Yousfi, L. Elmaaloum, B. Allali, A. Elkettani

ABSTRACT

Central serous chorioretinopathy (CSCR) is a pathology of the retina and the choroid characterized by a vanishing point causing sub-retinal fluid accumulation and focal retinal detachment.

We report a case of a 40-year-old male patient followed for 5 years in dermatology for psoriasis treated with topical corticosteroids who presented to the emergency department for a visual acuity at 3/10 in his right eye associated with a macular syndrome.

Several cases of corticosteroid-induced CRSC were found in the literature, but only few cases were found after application of topical corticosteroid. Optical coherence tomography was performed urgently and revealed central serous chorioretinitis. Treatment with topical corticosteroids was discontinued. The patient was seen a week later, with visual acuity recovery from 3/10 to 10/10, with improvement in macular syndrome.

Keywords: Central serous chorioretinopathy, corticosteroids, retina, corticosteroid ointment.

I. INTRODUCTION

Central Serous Chorioretinopathy (CSCR) is a rare retinal pathology that affects the young adult usually male which is characterized by the occurrence of a vanishing point resulting in an accumulation of sub-retinal fluid associated with a focal detachment of the retina. The pathophysiology has unfortunately not been clearly elucidated; several risk factors have been found (stress, disruption of the adrenergic system, anxiety, HTA, genetic predisposition, corticosteroids)

The CSCR is a rare complication of systemic corticosteroids; the dilated fundus examination finds a central serous retinal detachment (DSR). The diagnosis is confirmed by fluorescein angiography, which reveals one or more fluorescent “pinpoints” indicating fluid leakage.

II. CASE REPORT

This is a 40-year-old male patient who came to the ophthalmological emergency department for painless diminution of vision in his right eye associated with metamorphopsia and central scotoma. The history reveals that the patient has been followed for 5 years in dermatology for psoriasis (Fig. 1) and placed on topical corticosteroids.

Fig. 1: psoriatic foot and knee lesions.
motility and slit lamp examination were unremarkable.

The fundus examination revealed a maculopathy with a small serous retinal elevation. The examination of his left eye was without normal.

The fluorescein angiography was requested (Fig. 2) which found an inferotemporal leakage point of the macula, with progressive diffusion over the increasingly late times.

Optical coherence tomography (Fig. 3) allowed us to confirm the diagnostic of central serous chorioretinopathy with the existence of macular serous detachment.

The corticosteroid ointment was interrupted, the patient remained asymptomatic, he was reviewed a week later with a dramatic improvement in his visual acuity which went from 3/10 to 9/10 P2, with disappearance of macular syndrome.

Optical coherence tomography performed at one month after (Fig. 4) which showed an improvement in retinal serous detachment, while the patient, recovered visual acuity at 10/10 P2 and no longer has macular syndrome.

Central serous chorioretinopathy (CSCR) is a pathology of the retina and choroid characterized by a vanishing point resulting in sub retinal fluid accumulation and focal detachment of the retina.

This condition mainly affects young men (90%) (25 to 45 years) and is manifested by a moderate, sudden, unilateral rarely bilateral visual decrease with central scotoma and possibly metamorphopsia. The fundus examination finds a central serous retinal detachment. The diagnosis is confirmed by fluorescein angiography, which reveals one or more fluorescent “pinpoints” indicating fluid leakage [1].

The physiopathology has unfortunately not been clearly found, several risk factors have been found (stress, disturbance of the adrenergic system, anxiety, hypertension, genetic predisposition, corticosteroids)

Fluorescein angiography seems to confirm the hypothesis of choroidal involvement in the form of hyper fluorescent zones [2].

The association of CRSC and corticosteroids has been described by several authors [3]-[5], the action of corticosteroids can be multiple: increase serum catecholamine levels or act directly on RPE by inhibiting its repair processes [6]. However, CSCR association with a local corticoid intake has rarely been found in the literature, the most commonly used agents were the most used agents were mometasone furoate crème, betamethasone dipropionate 0.05% and betamethasone valerate 0.1%.

As far as the therapeutic component is concerned, there is no treatment that has proven to be useful, The wait-and-see attitude remains the course of action recommended by most authors especially when it comes to acute CSCR that resolve spontaneously in 2 or 3 months, however different treatments have been proposed such as focal laser photocoagulation of leakage points and dynamic phototherapy with verteporrfine [7], other treatments can be used are intravitreal bevacizumab injections [7].

CRSC is a rare complication of systemic corticosteroids. The fundus examination finds a serous retinal detachment, the fluorescein angiography confirm the diagnosis revealing a
vanishing point as well as optical coherence tomography, which reveal a retinal serous detachment.

The association of a CSCR with topical corticosteroids has rarely been mentioned in the literature.

Its occurrence requires the immediate cessation of the causal agent; the prognosis is generally favorable with a spontaneous recovery of visual acuity and the disappearance of macular syndrome.

CONFLICT OF INTEREST
Authors declare that they do not have any conflict of interest.

REFERENCES


