Central Serous Chorioretinopathy Associated with Rowatinex Usage

Santral Seröz Korioretinopati ve Rowatinex Kullanımı Birlikteliği

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Abstract

Central serous chorioretinopathy (CSC) is an idiopathic disorder characterized by serous detachment of the neurosensory retina. This report describes a case of CSC associated with rowatinex usage.

Keywords: Central serous chorioretinopathy, Retinal pigment epithelium detachment, Rowatinex, Serous macular detachment

Özet

Santral seröz korioretinopati (SSKR); nörosensorial retinanın seröz dekolmanı ile karakterize idiyopatik bir rahatsızlıktır. Bu yazıda rowatinex kullanımı ile birlikteliği olan bir SSKR olgusu sunulmaktadır.

Keywords: Santral seröz korioretinopati, Retina pigment epiteli dekolmanı, Rowatinex, Seröz makula dekolmanı
Introduction

Central serous chorioretinopathy (CSC) is a disorder characterized by serous detachment of the neurosensory retina secondary to one or more focal lesions of the retinal pigment epithelium (RPE) [1]. It occurs most frequently in mid-life, more often in men than in women. It can be precipitated by psychosocial stress and systemic glucocorticoid treatment, though their role in CSC is not well understood [1,2]. This report describes a case of CSC in association with the use of a terpenic mixture, rowatinex. Rowatinex (Rowa Pharmaceuticals Ltd., Ireland) is composed of pinene (31%), camphene (15%), anethol (4%), borneol (10%), cineol (3%), and fenchone (%4) in olive oil, and it is mainly used to control the pain of urolithiasis. It has anti-inflammatory, anti-spasmodic, anti-bacterial, and analgesic effects. Among the reported properties of rowatinex, the anti-inflammatory effect is achieved by the suppression of arachidonic acid metabolism and cytokine production [3].

Case Report

A 47-year-old man presented with blurred vision in his right eye of 5 days duration. Visual acuity was 0.9 in the right eye and 1.0 in the left eye. Fundus examination of the right eye revealed a well-delineated, dome-shaped elevation temporal to the papilla. Fluorescein angiography (FA) of the right eye showed transmision defects, a pin-point progressive hyperfluorescence on the temporal aspect of the macula, and a sharply demarcated pigment epithelial detachment (PED) next to the papilla that showed an increase in hyperfluorescence during the late phase (Figure 1). FA failed to demonstrate the detachment area in relation to the area of leakage. Further evaluation with optical coherence tomography (OCT) of the right eye revealed serous macular detachment associated with a peripapillary PED (Figure 2, a, b, and c). The patient’s left eye showed RPE alterations on the inferior aspect of the macula on FA. Questioning revealed that the patient had been receiving rowatinex capsules for urolithiasis for 3 months.

One week after the discontinuation of Rowatinex, acuity improved from 0.9 to 1.0 with partial resolution of subretinal fluid, as evidenced on OCT (Figure 2, d, e, and f). Three months later, FA findings in the right eye were unchanged with a visual acuity of 1.0. OCT showed further resolution of the subretinal fluid, with residual PED (Figure 2, g, h, and i).

Discussion

CSC is a disorder characterized by serous detachment of the macula primarily afflicting men in midlife. Pathophysiology of the disorder is still not completely understood. It has been suggested that initially there is choroidal hyperpermeability with congestion of the choriocapillaris along with exudation of protein and fluid. Next, RPE pump decumption occurs over time with the formation of a PED. Eventually, an RPE defect develops, allowing leakage into the subretinal space. This leakage leads to elevation of the neurosensory retina and a neurosensory retinal detachment [2]. PED is known to be associated with CSC [1,2,4-6], and OCT studies suggest that PED may be present in most cases of CSC [1,7,8]. Some medications, especially corticosteroids, have been implicated as potential risk factors in the development of CSC. However, their role in the development of CSC has not as yet been clarified [1,2,9].

In this report, we described a case of CSC in association with the use of rowatinex, a terpenic mixture. Of its components, pinene has anti-bacterial, anti-inflammatory, and anti-spasmodic activity. Pinene especially inhibits inflammatory mediators, including cytokines, nitric oxide synthase, cyclooxygenase-2 and inflammatory receptors, by modulating the nuclear translocation of Nuclear Factor kappa B. Borneol has been used to restore consciousness and to relieve pain. It specifically inhibits the nicotinic acetylcholine receptor-mediated effects in a non-competitive way. Cineol has anti-inflammatory activity that works by suppressing arachidonic acid metabolism and cytokine production [3]. Even though the exact pathogenic mechanism remains unclear, a decrease in the production of nitric oxide, an autoregulatory vasodilator that controls blood flow, and anti-inflammatory properties that cause delayed healing of RPE defects are two of the reported possible mechanisms of steroids in the development of CSC [2]. Regarding these possible mechanisms, Rowatinex may act in a manner similar to corticosteroids in this case.

Since CSC is a common disease and the serous detachments...
CSC and Rowatinex

can involve spontaneous resolution with recovery of visual function [1,2], it is not known whether the association with rowatinex use is incidental or causal in our case. However, resolution of serous macular detachment coincided with cessation of the medication. Therefore, Rowatinex may have precipitated or aggravated CSC in our case. In this report, we documented a possible association between the Rowatinex and CSC.

Conflict interest statement The authors declare that they have no conflict of interest to the publication of this article.

References