ARCHIVOS DE LA SOCIEDAD ESPAÑOLA DE OFTALMOLOGÍA

www.elsevier.es/oftalmologia

Short communication

Presumed solitary circumscribed retinal astrocytic proliferation☆

V.M. Asensio-Sánchez*, L. Díaz-Cabanas

Servicio de Oftalmología, Hospital Clínico Universitario, Valladolid, Spain

ARTICLE INFO

Article history:
Received 14 March 2016
Accepted 26 May 2016
Available online 9 February 2017

Keywords:
Presumed solitary circumscribed retinal astrocytic proliferation
Benign lesion
Astrocytes
Acquired retinal astrocytoma
Astrocytic hamartoma

ABSTRACT

Introduction: Presumed solitary circumscribed retinal astrocytic proliferation (PSCRAP) is a small defined solitary lesion.
Case report: A 58-year-old man had an opaque yellow retinal lesion inferonasal to the optic disc. Fluorescein angiography showed mild early hyperfluorescence and late fluorescence. Ultrasound showed no calcification. Autofluorescence disclosed moderate hyperautofluorescence. Optical coherence tomography showed the mass with a snowball configuration and a smooth surface. More than one year later, the lesion was unchanged.
Discussion: PSCRAP is a benign stable lesion. The main importance lies in its differentiation from well-circumscribed yellow-white lesions of the retina.

Presunta proliferación circunscrita solitaria de los astrocitos retinianos

Palabras clave:
Presunta proliferación circunscrita solitaria de los astrocitos retinianos
Lesión benigna
Astrocitos
Astrocitoma retiniano adquirido
Hamartoma astrocítico

RESUMEN

Introducción: La presunta proliferación circunscrita solitaria de los astrocitos retinianos (PPCSAR) es una pequeña lesión solitaria y definida.
Caso clínico: Varón de 58 años con una lesión opaca amarillenta inferonasal al disco óptico. La angiofluoresceingrafía mostró hiperfluorescencia leve en fase precoz y tardía. La ecografía no mostró calcificación. La autofluorescencia presentó autofluorescencia moderada. La tomografía de coherencia óptica mostró la masa con una configuración de bola de nieve con superficie lisa. Más de un año después, la lesión se mantuvo sin cambios.
Discusión: PSCRAP es una lesión benigna estable. Es importante diferenciarla de otras lesiones retinianas blanco-amarillentas.

☆ Please cite this article as: Asensio-Sánchez VM, Díaz-Cabanas L. Presunta proliferación circunscrita solitaria de los astrocitos retinianos. Arch Soc Esp Oftalmol. 2017;92:141–144.

* *Corresponding author.*
E-mail addresses: victor_asensio@orangemail.es, vmasensio@yahoo.es (V.M. Asensio-Sánchez).

Introduction

The retina is a complex structure formed by neurons and glial cells (astrocytes and Müller cells). Glial cells are highly reactive to any anomalous stimuli. This reactivity is called gliosis although proliferations rarely achieve sufficient volume to simulate a tumor.[1] Tumoral proliferation of retinal astrocytes is observed in benign acquired retinal astrocytoma and astrocytic hamartoma (AH) associated to tuberous sclerosis.[1] Recently, a rare retinal lesion has been described involving a presumptive solitary circumscribed proliferation of retinal astrocytes (PSCPRA), with unique characteristics differentiating it from reactive gliosis and tumoral proliferation.[1] A clinic case report is described which, despiste being straightforward, is relevant due to its rarity and characterization in definition pathways.

Clinic case report

Male, 58, without relevant familial and personal history, who visited the practice for a routine checkup. Visual acuity was 1 in both eyes (BE). Intraocular pressure taken with applanation was 15 mm Hg in BE. Anterior segment was also normal, bilaterally. Left eye ocular fundus examination was normal, but the right eye exhibited a white-yellowish opaque lesion less than one disc diameter, with well-defined edges and located in the nasal retina inferior to the optic nerve (Fig. 1). The lesion did not include nutrition or drainage vessels and did not seem to exhibit intrinsic vascularization. Autofluorescence showed slight hyperautofluorescense with a small area of hypoautofluorescense in the center (Fig. 1). Fluorescein angiography revealed slight hyperfluorescence in the early stage and moderate and well-defined in the late stage (Fig. 2). Echography showed a mass without calcifications (Fig. 3). Spectral domain optical coherence tomography (SD-OCT) revealed a hyper-reflective mass in snowball shape with smooth surface above the RPE and a slight optical acoustic shadow (Fig. 4). The lesion remained unchanged during a follow-up period exceeding one year.

Discussion

Presumptive PSCPRA is a clinical entity recently described by Shields et al.[1] in 7 patients. It is diagnosed generally in middle-aged males as a casual and asymptomatic finding in routine checkups. This tumor presents as a small, single and unilateral neoformation with well-defined edges which is white-yellowish in color, opaque, limited to the retina and remaining stable in time.[1] Shields et al.[1] considered that the PSCPRA acronym adequately describes the clinic characteristics of this process and, even in the absence of clear histological data, it is likely to be a proliferation of astrocytes. Recently, said authors considered that the tumor seems to originate in the external retina layers instead of the internal layers as indicated in their first description.[1,2] Schwartz and Harbour[3] presented a PSCPRA case studied with SD-OCT, suggesting that this tumor could originate in the middle layers of the retina instead of the nerve fiber layer. The patients described herein exhibited in SD-OCT a hyper-reflective mass over the RPE and Bruch's membrane. The angiographic study of the last case series described by Shields et al.,[2] generally shows early and late hypofluorescense, matching the suspicion that it is actually an atypical fibrous metaplasia of the RPE, although angiographic behavior is variable in contrast with the relative stability of tomographic behavior. Therefore, it might

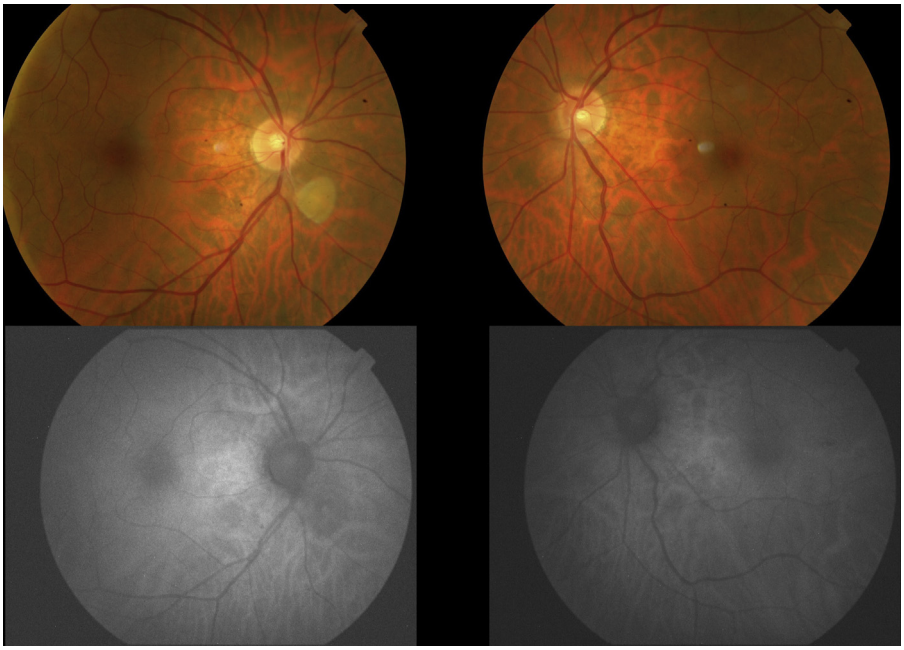

Fig. 1 – Top: retinograph of both eyes. Right eye (RE): opaque tumor (preventing visualization of the vessels), white-yellowish with well-defined edges located in the nasal retina inferior to the optic nerve. Bottom: autofluorescense: RE lesion exhibits areas of slight increase and reduction of autofluorescense.