Reumatol Clin. 2012;8(5):280–283

Reumatología Clínica

www.reumatologiaclinica.org

Case report

Maculopathy in Patient With Systemic Lupus Erythematosus Treated With Hydroxychloroquine☆

Francisco Jorge Rodríguez-Hurtado,[a,*] José Antonio Sáez-Moreno,[b,c] José Manuel Rodríguez-Ferrer[b]

[a] Servicio de Oftalmología, Hospital Virgen de las Nieves, Granada, Spain
[b] Laboratorio de Neurociencia Visual y Cognitiva, Universidad de Granada, Granada, Spain
[c] Servicio de Neurofisiología Clínica, Hospital Universitario San Cecilio, Granada, Spain

ARTICLE INFO

Article history:
Received 9 September 2011
Accepted 8 December 2011
Available online 22 May 2012

Keywords:
Lupus erythematosus
Hydroxychloroquine
Central serous chorioretinopathy
Multifocal electroretinography

ABSTRACT

A 50-year-old woman with systemic lupus erythematosus treated for 13 years with hydroxychloroquine developed nephropathy and high blood pressure 5 years ago as well as moderate loss of vision in her right eye. Fundoscopy showed alterations of macular pigmentation only in the right eye. Visual fields 10-2 were normal in both eyes. Optical coherence tomography showed hyperreflective foveal thickening with a hyporreflective cavity underlying in the right macula, and was normal in left macula. Fluorescein angiography showed no bulls-eye pattern, but did show microaneurysms in vascular arcades. Multifocal central electroretinogram was diminished in right eye and the electroretinogram pattern was diminished in both eyes. We concluded that the alterations of the right eye were suggestive of ischemic maculopathy, not chloroquine toxicity.

Maculopatía en paciente con lupus eritematoso sistémico tratado con hidroxicloroquina

Palabras clave:
Lupus eritematoso
Hidroxicloroquina
Coriorretinopatía central serosa
Electrorretinografía multifocal

RESUMEN

Una mujer de 50 años con lupus eritematoso sistémico, tratada 13 años con hidroxicloroquina y desde hace 5 años con nefropatía e hipertensión arterial, refirió en la revisión periódica pérdida moderada de visión en el ojo derecho. La fundoscopia mostró solo alteraciones de la pigmentación macular en el ojo derecho. El campo visual 10-2 fue normal en ambos ojos. La tomografía de coherencia óptica mostró en la mácula derecha un engrosamiento foveal hiperreflectivo, con cavidad hiporreflectiva subyacente, y fue normal en la mácula izquierda. La angiografía fluoresceínica no mostró patrón en ojo de buey, sino microaneurismas en arcadas vasculares. El electrorretinograma multifocal central estaba disminuido en el ojo derecho y el electrorretinograma patrón moderadamente disminuido en ambos ojos. En conclusión, las alteraciones del ojo derecho fueron indicativas de maculopatía isquémica, pero no de toxicidad cloroquínica.

Introduction

Synthetic antimalarials in the treatment of systemic lupus erythematosus (SLE) have been a major therapeutic advance and serve as immunomodulators and inhibitors of thrombosis, with few side effects, prolonging the quality of life of patients. Their withdrawal leaves the patient with SLE at the mercy of the side effects of corticosteroids and immunosuppressants, and increases the risk of flares.[1]

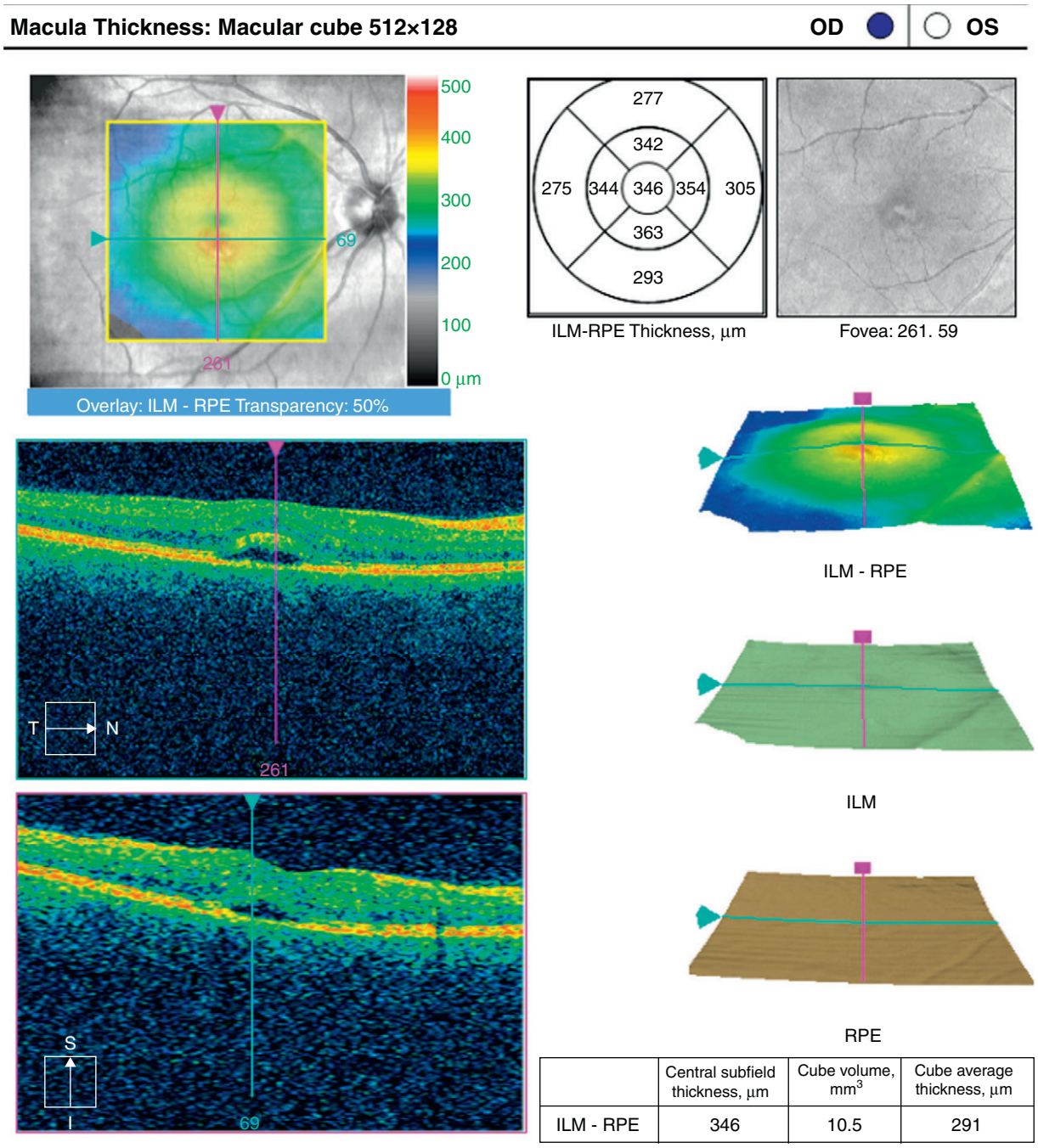
Hydroxychloroquine can cause severe retinal toxicity, requiring discontinuation of therapy, although there are few cases of cloroquine retinopathy, always related to very high cumulative drug dose.[2]

Synthetic antimalarial toxicity is detected by ophthalmic screening protocols focused on development of macular pathology.[3] One must not forget that the patient with SLE is predisposed to retinal ischemia that may be confused with macular damage due to cloroquine. We present a case in which the ocular findings represented a challenge in the therapeutic decision.

☆ Please cite this article as: Rodríguez-Hurtado FJ, et al. Maculopatía en paciente con lupus eritematoso sistémico tratado con hidroxicloroquina. Reumatol Clin. 2012. doi:10.1016/j.reuma.2011.12.012

* Corresponding author.
E-mail address: frhurtado@telefonica.net (F.J. Rodríguez-Hurtado).

2173-5743/$ – see front matter



	Central subfield thickness, µm	Cube volume, mm^3	Cube average thickness, µm
ILM - RPE	346	10.5	291

Fig. 1. Optical coherence tomography of the right eye of the patient showing discrete thickening of the fovea, with a hyporeflective space in the outer layers of the retina (arrows).

Case Report

A 50-year-old woman with SLE was treated with a umulative dose of 365 g of hydroxychloroquine for 13 years, with mild lupus nephritis and hypertension controlled 5 years prior; during her screening for ocular toxicity she presented moderate loss of vision, presenting a corrected visual acuity of 0.7 in the right eye and 1 in the left eye. In the right fundus we observed irregular areas of hyperpigmentation and depigmentation in the macula, without apparent serous uprising, and some arcades microhemorrhages. The left fundus appeared normal. 10-2 the visual field was normal in both eyes. Optical coherence tomography (OCT) of the right eye showed hyperreflective foveal thickening and hyporreflective cavities in deep layers (Fig. 1). The OCT of the left eye was normal. Fluorescein angiography (FA) showed no bull's-eye pattern, but microaneurysms in both eyes (not detected on fundoscopy), sectoral distribution and hyper-and hypofluorescence late macular leakage (Fig. 2). In the multifocal electroretinogram (mfERG) there were low amplitude responses in both peripheral retinas, low power density in the foveal region of the right eye and normal foveolar activity in the left eye (Fig. 3). The alteration of the N95 wave of the electroretinogram pattern reflected a dysfunction of the ganglion cells of both retinas, probably causing the disease.

The neurophysiological findings, the OCT and FA suggested a vascular origin rather than a toxic effect, so it toxicity was ruled out and hydroxychloroquine retinopathy was diagnosed as lupus, recommending the maintenance of the antimalarial but with close monitoring of the patient to prevent maculopathy as a risk factor. In