



# ARCHIVOS DE LA SOCIEDAD ESPAÑOLA DE OFTALMOLOGÍA

www.elsevier.es/oftalmologia



## Short communication

# Early changes in optic coherence tomography in a child with laser pointer maculopathy<sup>☆</sup>



C. Sánchez-Barahona<sup>a,\*</sup>, J. González-Martín-Moro<sup>a,b</sup>, J. Zarallo-Gallardo<sup>a,b</sup>,  
I. Lozano Escobar<sup>a</sup>, R. Cobo-Soriano<sup>a,b</sup>

<sup>a</sup> Servicio de Oftalmología, Hospital del Henares, Coslada, Madrid, Spain

<sup>b</sup> Universidad Francisco de Vitoria, Pozuelo de Alarcón, Madrid, Spain

### ARTICLE INFO

#### Article history:

Received 4 May 2016

Accepted 28 June 2016

Available online 17 October 2016

#### Keywords:

Maculopathy

Solar retinopathy

Laser pointer

Optical coherence tomography

### ABSTRACT

**Case report:** A 9-year-old boy referred due to visual loss in his right eye after playing with a laser pointer. In the first visit (12 h later) visual acuity (VA) was 0.15. A hypopigmented lesion was present in the fovea, and optical coherence tomography (OCT) showed vertical hyper-reflective bands. In the last visit (6 months later), VA had improved to 0.5, and OCT showed a well-defined area of outer retinal layer disruption.

**Discussion:** An inadequate use of laser pointers can induce severe and permanent visual loss.

© 2016 Sociedad Española de Oftalmología. Published by Elsevier España, S.L.U. All rights reserved.

## Cambios precoces en la tomografía de coherencia óptica en un niño con maculopatía inducida por puntero láser

### RESUMEN

**Caso clínico:** Niño de 9 años de edad, que refiere pérdida visual en su ojo derecho, después de jugar con un puntero láser. En la primera exploración (12 h después) la agudeza visual (AV) era 0,15, la fovea presentaba una lesión hipopigmentada, y la tomografía de coherencia óptica (OCT) demuestra la presencia de bandas hiperreflectivas verticales. Al cabo de 6 meses, la AV había mejorado a 0,5 y se aprecia en la OCT un área bien definida de interrupción de la retina externa.

**Discusión:** Un inadecuado uso de los punteros láser, puede producir pérdida visual severa e irreversible.

© 2016 Sociedad Española de Oftalmología. Publicado por Elsevier España, S.L.U. Todos los derechos reservados.

#### Palabras clave:

Maculopatía láser

Retinopatía solar

Puntero láser

Tomografía de coherencia óptica

láser

<sup>☆</sup> Please cite this article as: Sánchez-Barahona C, González-Martín-Moro J, Zarallo-Gallardo J, Lozano Escobar I, Cobo-Soriano R. Cambios precoces en la tomografía de coherencia óptica en un niño con maculopatía inducida por puntero láser. Arch Soc Esp Oftalmol. 2017;92:33–36.

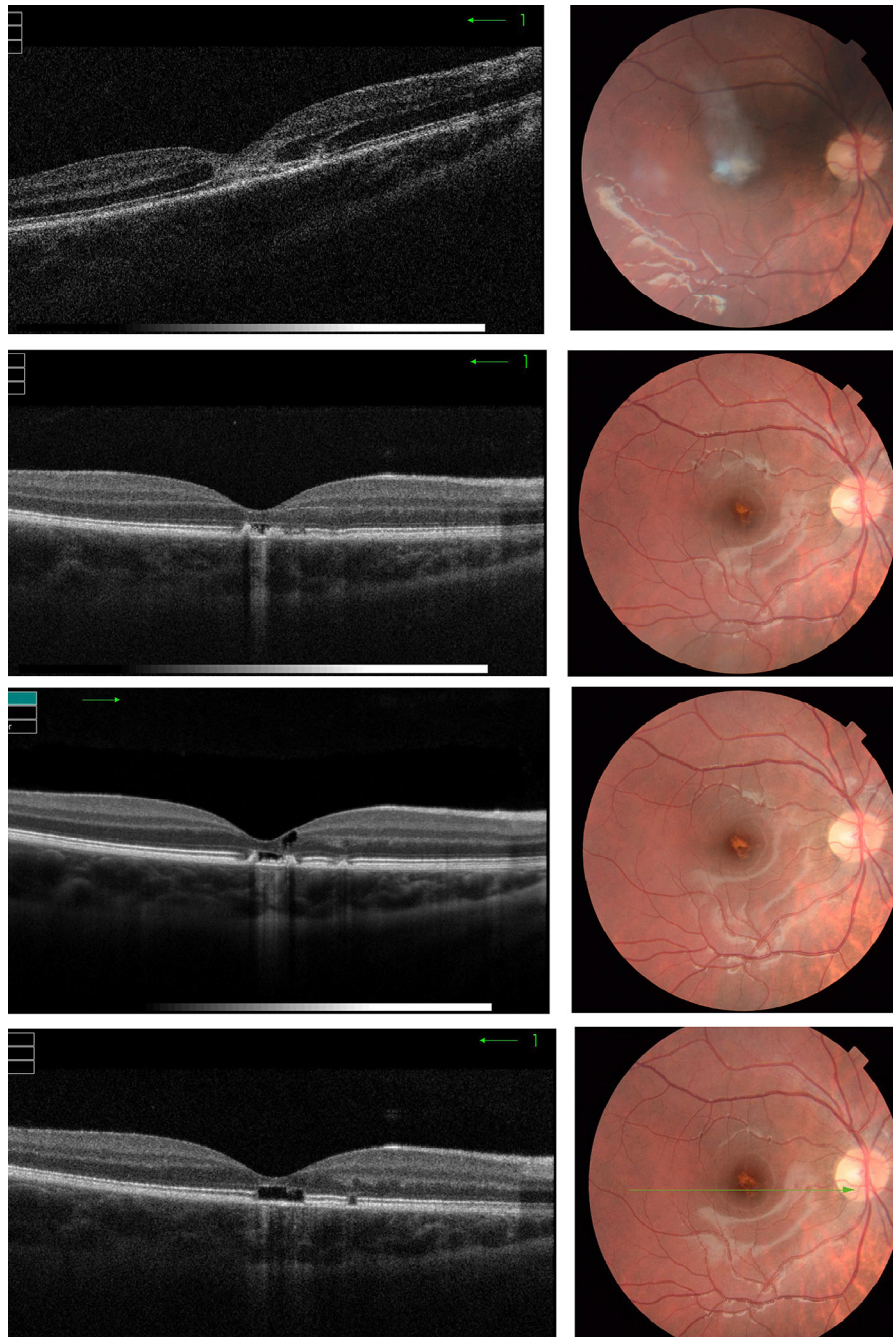
\* Corresponding author.

E-mail address: [cristinasanchezbarahona@gmail.com](mailto:cristinasanchezbarahona@gmail.com) (C. Sánchez-Barahona).

## Introduction

Hand-held laser pointers emit electromagnetic waves that spread in the form of a light beam that can cause retinal and cutaneous lesions. The factors that determine the effect of laser beams on the retina are wavelength, exposure time,

power and beam size. The current European standard for laser products is EN 60825-4:2007/A1:2010 on «Safety of Laser Products» that comprises laser devices in several classes: class I, class 1M, class 2, class 2M, class 3R, class 3B and class 4 on the basis of their wavelength and the associated potential risks. Said standard allows the use by consumers of laser devices up to class 2M that emit visible radiation (400 and



**Fig. 1** – Retinographs and OCT (12 h, 10 days, one and 6 months after exposure) illustrating the evolution of the macular lesion. Initially (12 h), the presence of a yellowish hypo-pigmented lesion affecting the foveolar area can be seen. Subsequently, the lesion evolves to become a cystic lesion. In the latest OCT images (2 and 6 months after exposure), the image shows the interruption of the external retina layers at the subfoveal level as well as a small extra foveal defect. Despite the total absence of photoreceptors in the central foveal area, the VA of the child after 6 months is of 0.5 and CV is normal. Retinographs show a yellowish foveal lesion surrounded by pigment, similar to the one which frequently appears in solar retinopathy.

Download English Version:

<https://daneshyari.com/en/article/8791589>

Download Persian Version:

<https://daneshyari.com/article/8791589>

[Daneshyari.com](https://daneshyari.com)