Short communication

Vitreous hemorrhage secondary to iridociliary cyst


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Abstract

Case report: An 18-year-old man, presented a lower vitreous hemorrhage of unknown cause. Multiple tests are performed, including Ophthalmic Ultrasound and Fluorescein Angiography (FA), they did not find justification of bleeding. Finally, we decide to do a Biomicroscopy Ultrasonic (UBM) showing an iridociliary cyst.

Discussion: The iridociliary cysts are single or multiple, primary or secondary. The primaries are usually benign so, they do not require treatment. When the cyst has a considerable size, it may produce a focal plateau iris with or without angle-closure. Our case reveals an unusual complication that should take notice of when you have an unknown vitreous hemorrhage.

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Palabras clave:
Quiste
Iridociliar
Biomicroscopía ultrasonica
Cierre angular
Hemovitreo

Resumen

Caso clínico: Varón de 18 años, presentó un hemovitreo inferior de causa desconocida. Se realizan múltiples pruebas, entre ellas ecografía oftálmica y angiofluorocoeingrafía (AFG), no encontrándose justificación al sangrado. Finalmente se decide realizar una biomicroscopia ultrasonica (BMU) donde se aprecia un quiste iridociliar.

Discusión: Los quistes iridociliares son únicos o múltiples, primarios o secundarios. Los primarios suelen tener carácter benigno, por lo que no requieren tratamiento. Cuando el quiste alcanza un tamaño importante puede producir un iris meseta focal con o sin cierre angular. Nuestro caso describe una complicación inusual que habría que tener en cuenta ante un hemovitreo de origen desconocido.

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Introduction

Iris cysts are infrequent injuries whose importance lies in the differential diagnosis with malignant tumours.\textsuperscript{1} Shields et al classified them into primary and secondary. Primary cysts are classified into pigment and stromal epithelial cysts; secondary cysts are classified into epithelial, either intra-ocular tumour or parasites.\textsuperscript{2}

Within the primary or neuroepithelial cysts are the peripheral ones (iridociliary), which are formed spontaneously at the junction of the iris with ciliary body, and are the most common. They can be round or oval, frequently single. They are often diagnosed by chance in young people. Among their complications is the focal plateau iris that could lead to angular occlusion, although this is uncommon and is usually associated with large cysts and dislocations. Dislocations are movements or landslides into anterior chamber or into the vitreous. They do not usually require treatment since they are benign.\textsuperscript{2-5}

In contrast, secondary cysts cause further complications: corneal oedema, uveitis, glaucoma and decreased visual acuity.\textsuperscript{3}

Ultrasound biomicroscopy (UBM) has enabled a breakthrough in the anatomical visualisation of the cyst and in its differential diagnosis. It has a penetration of about 4 mm inside the eyeball, with an approximate lateral and axial resolution of 50 \mu m with the 50 MHz transducer. It far surpasses conventional ultrasound with 10 MHz transducer and a resolution of 300–400 \mu m.\textsuperscript{6,7}

Fig. 1 – Ocular ultrasound of the LE. No significant injuries, no evidence of optic nerve drusen.

Fig. 2 – Fluorescence angiography of the LE. Compatible with normal, without the presence of new vessels or vascular disorders.
Fig. 3 – UBM of the LE. Image of single iridociliary cyst of 0.86 mm × 0.57 mm, thin-walled and without internal reflectivity.

Clinical case

Man of 18 years, referred from another hospital for left eye (LE) vitreous haemorrhage of 20 days of development. No relevant personal and ophthalmological history, diseases, trauma, surgeries or systemic or topical treatments.

The examination showed a better corrected visual acuity in the right eye (RE) with −5.0 to 21° of the unit and in the LE with −6.25 to −0.75 to 11° of the unit. The intraocular pressure was of 13 mmHg in both eyes (BE). Biomicroscopy was normal, no protruding iris mass or asymmetry between the anterior chamber of BE. Gonioscopy showed an open angle with no changes along the different quadrants. No retro-iridian masses were observed. The fundoscopy revealed a pupilla with a slightly raised nasal edge, symmetric in BE, normal macula and vasculature. No rhegmatogenous peripheral retina in BE and a lower vitreous haemorrhage in re-absorption in the LE.

Ocular ultrasound (Fig. 1) was performed to rule out optic disc drusen as justification for raising the papillary nasal edge; and fluorescence angiography (FA) (Fig. 2) to exclude new vessels or vascular abnormalities to explain the bleeding, both being normal. It was decided to perform an UBM (Ultrasonic Biometer Microscopic)/Sonomed Ultrasound B (Figs. 3 and 4); a round cyst of 0.86 mm × 0.57 mm in the LE was observed, of thin-walled high reflectivity and anechoic content compatible with an iridociliary cyst, not producing distortion in the angle.

Discussion

It is assumed that the UBM offers great help for the differential diagnosis of iris lesions. It is necessary to make a differential diagnosis with iris nevus, solid injury with homogeneous internal reflectivity, which does not produce distortion of the structure where it settles, with or without slow growth; unlike melanoma which is a solid structure of medium and uniform

Fig. 4 – UBM of the LE. Iridociliary cyst (arrow) that does not distort the ciliary body or produce an angle closure.
Conflict of interest

The authors declare that there are no conflicts of interest.