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Short communication

Hypertensive acute granulomatous anterior uveitis as a side effect of topical brimonidine☆,☆☆

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ABSTRACT

Clinical case: The case concerns an 81-year-old woman on treatment with a topical fixed combination of timolol and brimonidine who was diagnosed in the Emergency Department with acute anterior granulomatous hypertensive uveitis. The patient responded favorably to the withdrawal of the eye drops without showing any subsequent relapse.
Discussion: Uveitis due to brimonidine is a rare adverse effect, but it must be known. Once the diagnosis is suspected, the effective treatment is the withdrawal of brimonidine, with or without the addition of topical corticosteroids to control inflammation depending on the severity of the condition. It is a process with an excellent prognosis.

Uveítis anterior aguda hipertensiva granulomatosa bilateral como efecto adverso a brimonidina tópica

Palabras clave:
Brimonidina
Precipitados retroqueráticos en grasa de carnero

RESUMEN

Caso clínico: Mujer de 81 años en tratamiento con una combinación fija de timolol y brimonidina en colirio que fue diagnosticada en urgencias de uveítis anterior aguda hipertensiva granulomatosa. La paciente respondió favorablemente a la retirada del colirio sin mostrar recaída posterior.

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Uveítis anterior granulomatosa
Uveítis inducida por brimonidina

Discusión: La uveítis por brimonidina es un efecto adverso raro, pero que debe ser conocido. Una vez se llega al diagnóstico de sospecha, el tratamiento efectivo es la retirada del colirio de brimonidina, con adición o no de corticoides tópicos para controlar la inflamación según la gravedad del cuadro. Se trata de un proceso con un pronóstico excelente.

Introduction

Some of the most frequent side effects of brimonidine are photophobia, conjunctival hyperemia, follicular conjunctivitis, ocular pruritus, allergic conjunctivitis and allergic blepharitis.[1,2] These give rise to treatment interruptions by patients. Allergic reactions are more frequent with brimonidine than with β-blockers and are resolved when suspending the treatment. A less frequent but potentially more dangerous side effect is the appearance of granulomatous acute anterior uveitis,[1–5] which is frequently hypertensive[2] and associated to bilateral follicular conjunctivitis.

Clinical case report

Female, 81, who visited the ophthalmological Emergency Department due to ocular discomfort and bilateral red eyes for several days. Systemic antecedents of the patient included non-insulin-dependent diabetes mellitus. Ophthalmologically, the patient was in topical treatment with Combigan® eyedrops (Allergan, Dublin, Ireland) every 12 h for open angle primary glaucoma starting 2 years before. Six years ago she underwent phacoemulsification in both eyes without complications.

At the visit, intraocular pressure (IOP) measured with applanation tonometry was 40 mmHg in the right eye (RE) and 42 mmHg in the left eye (LE). Best corrected visual acuity was 1/10 in both eyes (BE). Slit lamp examination showed conjunctival hyperemia with signs of blepharitis and chronic conjunctivitis with follicular reaction in the tarsi and inferior symblepharon in BE (Fig. 1 A and 1 B). The cornea exhibited thin and diffuse epithelial keratitis as well as thick, bilateral, endothelial mutton-fat keratic precipitates (Fig. 1C). The anterior chamber was broad and exhibited a 2+ inflammatory reaction. The iris was normal, without transillumination defects and round pupil without synechiae. The intraocular lens did not show alterations and the eye was free of vitritis and chorioretinal inflammatory areas.

The case was defined as bilateral hypertensive granulomatous anterior uveitis, initiating topical treatment with prednisolone acetate six times a day in descending regime, cyclopentolate three times a day, artificial tears and a capsule of valacyclovir 1 g three times a day. Even though no ophthalmological infectious antecedents were found, as the uveitis was hypertensive, antiviral treatment was established due to the possibility of herpes.

Two days after the visit, IOP was 46 mmHg in RE and 44 mmHg in LE. Anterior pole showed the same appearance as in the previous visit and the anterior chamber inflammation persisted. Systemic diagnostic screening for uveitis and typing for HLA B27 was negative.

The irritation exhibited by the conjunctiva and both eyes, and the fact that the uveitis was bilateral and gave negative results in the systemic diagnostic screening for uveitis, led us to consider the possibility of hypertensive uveitis associated to brimonidine after finding references supporting this clinic suspicion. Accordingly, the Combigan® eyedrop treatment was terminated, adding a fixed combination of dorzolamide and timolol. The prescription of corticoids in eyedrops, cyclopentolate and artificial tears was continued but the oral antiviral treatment was also terminated.

Two weeks after terminating brimonidine, best corrected visual acuity was 2/10 in RE and 5/10 in LE. IOP reading was 25 and 24 mmHg in RE and LE, respectively. Conjunctival hyperemia had disappeared, corneal epitheliopathy had diminished as well as the mutton-fat endothelial precipitates (Fig. 2). The anterior chamber did not show inflammation and for this reason, and considering the clearer improvement of endothelial precipitates, it was decided to add a daily dose of latanoprost to the treatment.

One week after including said prostaglandin to the topical treatment and a few weeks after terminating brimonidine, IOP was 20 mmHg in BE. Endothelial precipitates were scarce and

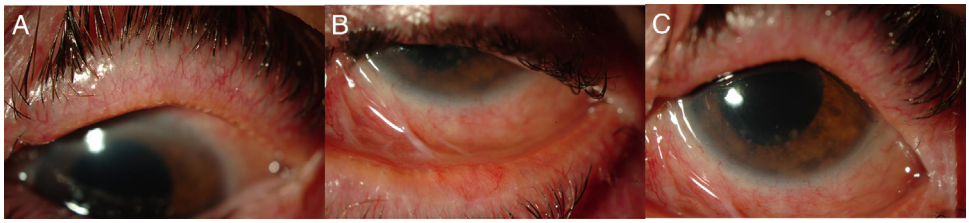

Figure 1 – Ocular surface at the first visit. (A) Blepharitis and meibomitis. (B) Symblepharon. (C) Mutton-fat keratic precipitates.