SIDE-EFFECTS OF TRIAMCINOLONE IN YOUNG PATIENTS

EFECTOS SECUNDARIOS DE LA TRIAMCINOLONA EN PACIENTES JÓVENES

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ABSTRACT

Case reports: Intravitreal triamcinolone is being increasingly employed for the treatment of macular diseases. We report two cases of intraocular pressure elevation and cataract formation after intravitreal triamcinolone therapy, and wonder if these complications are more likely when this agent is used in young patients.

Intravitreal triamcinolone was injected into both eyes of the two young patients with chronic posterior and intermediate uveitis refractory to periocular and oral corticosteroid therapy. Chronic cystoid macular edema improved in both patients, however the intraocular pressure increased, requiring topical antihypertensive therapy, and this was followed by accelerated cataract formation.

Discussion: Young age and chronic inflammation could be associated with an intraocular pressure rise and subsequent cataract development after intravitreal triamcinolone (Arch Soc Esp Oftalmol 2006; 81: 405-408).

Key words: Youth, intravitreal triamcinolone, side effects, uveitis, cataract, macular edema.

RESUMEN

Casos clínicos: El uso de triamcinolona intravítrea está extendiéndose como tratamiento de enfermedades maculares. Los efectos secundarios pueden variar en jóvenes. Presentamos dos casos de incremento de la presión intraocular (PIO) y desarrollo de cataratas. Dos pacientes jóvenes con uveítis crónicas refractarias a glucocorticoides perioculares y orales, recibieron inyecciones intravítreas de triamcinolona.

El edema macular crónico mejoró en ambos pacientes. Se produjo un incremento de PIO, seguido de la aparición acelerada de cataratas.

Discusión: La juventud y la inflamación crónica podrían estar asociadas a incrementos de PIO y el consecuente desarrollo de cataratas tras inyección intravítrea de triamcinolona.

Palabras claves: Juventud, triamcinolona intravítre, efectos secundarios, uveítis, catarata, edema macular.
INTRODUCTION

The injection of intravitreous triamcinolone is extending as a treatment of inflammatory and neovascular macular diseases. However, there is very little information available about its use in young patients. We present two cases of increase in IOP followed by the appearance of cataracts after the injection of intravitreous triamcinolone in two patients with chronic uveitis.

CASE REPORTS

Case 1

A 13-year old girl diagnosed in May 2003 of intermediate uveitis and treated with topical, peribulbar and oral glucocorticoids, with cystic macular edema (CME) persistent in both eyes and visual acuity (VA) of 0.2 in the right eye (RE) and 0.4 in the left eye (LE). In February 2004 4 mg of triamcinolone were injected intravitreous (Trigon Depot®, Bristol-Myers Squibb) in the RE. One month later, the CME had resolved with a VA of 0.7. Therefore the treatment was repeated in the LE with a VA of 0.7. One year later an IOP of 26 mmHg was detected in the RE and 23 mmHg in the LE, which was controlled with topical timolole 0.5% (Timotol® 0.5%, MSD). In July 2005, the patient had developed posterior subcapsular cataract (fig. 1), with a VA of 0.2 in the RE and 0.5 in the LE. At present, she is awaiting phacoextraction surgery.

Case 2

A 13-year old girl who visited due to loss of VA in both eyes (0.1 RE and 0.2 LE). The eye fundus check revealed the presence of bilateral CME. The fluorescein angiography exhibited diffuse pigmentary epitheliopathy with exudative edema and secondary serous retinal detachments. At the age of 5 months the patient had been successfully treated of Langerhans cell histiocytosis, therefore a complete systemic study was carried out, including cranial and orbitary imaging tests, without significant findings. Treatment was initiated with topical, peribulbar and oral corticosteroids.

The peribulbar triamcinolone injections were repeated on four occasions in the course of the following year, achieving only temporary improvements of the macular edema and serous detachments. In Sept. 2002, treatment with oral cyclosporine was established and in March 2003 azatioprine was added due to the persistence of CME. Finally, in July 2003 4 mg of triamcinolone were injected intravitreous in both eyes, with initial improvement of the CME and VA. Said injections were repeated twice in the RE and once more in the LE. In Dec. 2004 IOPs of 27 mmHg (RE) and 26 mmHg (LE), and therefore topical therapy was initiated with timolole 0.5% and dorzolamide 0.02% (Cosopt®). In March 2005, the patient exhibited severe bilateral VA loss (<0.05) due to development of intumescent cataracts (fig. 2). After phacoextraction surgery with intraocular lens implant free of complications, the VA is of 0.3 in both eyes.

DISCUSSION

IOP increase is a well-known complication of intravitreous injections of triamcinolone, with a prevalence of about 30%. Jonas et al have proved that the appearance of high IOP after intravitreous triamcinolone is significantly associated to lower ages and uveitis (1,2).

In a prospective pilot study with intravitreous triamcinolone for chronic inflammatory idiopathic CME, Young et al found increased IOP in 5 out of 8 patients aged between 23 and 27. They speculated
that this high prevalence could be due to a compromising of the angular drainage secondary to chronic inflammation (3).

The only published case we have found of intravitreous triamcinolone in young people explained that a 17-year old patient developed high IOP (4).

Our two patients exhibited increased IOPs, which supports the findings of Jonas et al according to which lower ages and inflammation foster high IOPs after intravitreous administration of triamcinolone.

The rapid emergence of cataracts in both patients could be linked to the extended use of glucocorticoids. However, Gillies et al have found a relationship between the IOP increase after triamcinolone and the development of cataracts. In a prospective study on exudative Age Related Macular Degeneration treated with intravitreous triamcinolone, they detected a significantly higher rate of cortical and posterior subcapsular cataracts in patients with hypertension responses vis-à-vis non-responders (51% vs. 3% and 15% vs. 3% respectively) (5). In the research of Young et al, 2 out of 5 respondents developed posterior subcapsular cataracts in 6 months (3). Accordingly, the accelerated emergence of cataracts in our patients could be related to increased IOPs.

Ophthalmologists considering the use of triamcinolone in young people should bear in mind the greater risk of high IOP and the emergence of cataracts. More information is needed about the side effects of triamcinolone in these patients and how the inflammatory etiology influences the high IOP response.

REFERENCES