

EYELID CONTACT ALLERGIC ECZEMA CAUSED BY TOPICAL KETOROLAC TROMETHAMINE 0.5%

ECCEMA ALÉRGICO DE CONTACTO PALPEBRAL POR KETOROLACO TROMETAMOL 0,5% TÓPICO

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ABSTRACT

Clinical case: A 65-year-old man had been treated with eye-drops containing NSAIDs (Ketorolac). He developed conjunctival injection, edematous swelling of the eyelids and periorbital dermatitis due to a contact allergy. Allergy to NSAIDs is uncommon.

Discussion: This is an unusual case because topical application of ketorolac is safe in the vast majority of ophthalmologic patients. However adverse events associated with Ketorolac are similar to that of other NSAIDs (*Arch Soc Esp Oftalmol 2006; 81: 213-216*).

Key words: Allergic, contact eczema, Ketorolaco, asthma, oedema, dermatitis.

RESUMEN

Caso clínico: Hombre de 65 años que había sido tratado con AINE tópico (Ketorolaco). El paciente presentó inyección conjuntival, edema de párpados, y dermatitis periorbitaria por eccema alérgico de contacto secundario a AINE, un hecho raro en este tipo de tratamiento.

Discusión: Este es un caso raro, ya que la aplicación de Ketorolaco tópico es seguro en la mayoría de los pacientes oftalmológicos. Además, las reacciones adversas asociadas con el Ketorolaco son similares a otros AINES.

Palabras clave: Alergia, eccema de contacto, Ketorolaco, asma, edema, dermatitis.

INTRODUCTION

The use of topical non-steroid anti-inflammatory drugs (NSAIDs) in ophthalmology is broadly extended for a large variety of pathologies such as allergic conjunctivitis, vernal conjunctivitis, inflammation of the anterior segment, cystic macular edema, for prevention of surgical myosis, treatment of

postop eye inflammation and after refractive surgery in order to reduce inflammatory processes mediated by prostaglandines.

Allergy eczema is a skin intolerance to different exogenous and endogenous agents which unleashes a type 4 hypersensitivity reaction (with cells or belated). It causes a superficial skin inflammation with the concurrence of several elementary lesions:

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erithema, vesicle, erosion, exudation, scabs, exfoliation and lichenification (1). Skin and cosmetic preparations are the main cause of contact allergic eczema in eyelids. Clinical signs include conjunctival injection, blefaritis, periorbital dermatitis and palpebral edema with pruritus (2).

Ketorolac tromethamol 0.5% is a second-generation topical NSAID of the pirrole-pirrol group, a white salt in aqueous solution which inhibits the cyclo-oxygenase enzyme which is essential for biosynthesis of prostaglandins.

CASE REPORT

A 61 year-old male who went to the urgency ward with erithematose-descaling lesions in upper and lower eyelids, suppuration, formation of skin scabs and pruritus. This condition was labelled as contact allergic eczema in scabbing exudative phase (fig. 1). The patient did not refer reduction in visual acuity. The exploration revealed grade 2-3 conjunctival hyperemia, negative cornea fluoresceine, intense follicle-papillar reaction and serous secretion, as well as cortical-nuclear cataracts due for surgery. Intra-ocular pressure and eye fundus were normal.

The patient's history showed that he was being prophylactically treated prior to the cataract surgery and had been applying Ketorolac trometamol (Acular™, Allergan SA, Tres Cantos, Madrid, Spain) for



Fig. 1: Contact allergic eczema involving the four eyelids. Erithematose-descaling lesions in upper and lower eyelids, suppuration and formation of cutaneous scab lines.

four days as well as Norfloxacin Chibroxin, Merck Sharp & Dohme de España, S.A.; Madrid, Spain) three times a day.

Said applications were withdrawn and the urgency Ward administered 60 mg of intramuscular methylprednisolone and fluocynilone acetonide ointment. After two weeks, the patient's lesions improved (figs. 2 and 3).

The patient was referred to the allergy service for skin testing, «True test» for Ketorolac, Norfloxacin and Phenylefrine. The «True test» made with undiluted eye drop solution and readings at 48, 72 and 120 hours gave positive results for Ketorolac and Phenylefrine (fig. 4).

DISCUSSION

The use of topical non-steroid anti-inflammatory drugs (NSAIDs) in ophthalmology is broadly extended for a large variety of inflammatory processes such as allergic conjunctivitis, vernal conjunctivitis, inflammation of the anterior segment, cystic macular edema, preop and postop eye surgery and the like. However, there are multiple adverse reactions associated to their topical use such as itching, reduction of corneal sensitivity, keratopathy, ulcerations, corneal and scleral thinning and even corneal perforation (3).

Eczema is a dynamic process which goes through several stages: an acute stage and a chronic stage. In the former, three phases are identified, the erithema and edema phase, the vesiculization phase and exudation phase, in which the vessels break and leave small erosions through which an abundant serous exudation flows which, upon drying, forms scabs. This is the stage our patient was in (1).

Clinical tests with Ketorolac showed that the most frequent adverse reactions are red eyes, temporary irritation and itching as well as minor symptoms such as hyperemia, swelling below the eye and slight palpebral edema. According to these criteria, a review which included 1,055 individuals who were administered Ketorolac in clinical pharmacology and essays, proved that only 32 (3%) exhibited allergic reactions. Under the same criteria 20 out of 801 (2.5%) of the patients treated with the excipient exhibited an allergic reaction (file data, Allergan, Inc. Syntex study report CL5654, Ophthalmology clinical research department. Ketorolac tromethamine ophthalmic solution 0,5 %: integra-

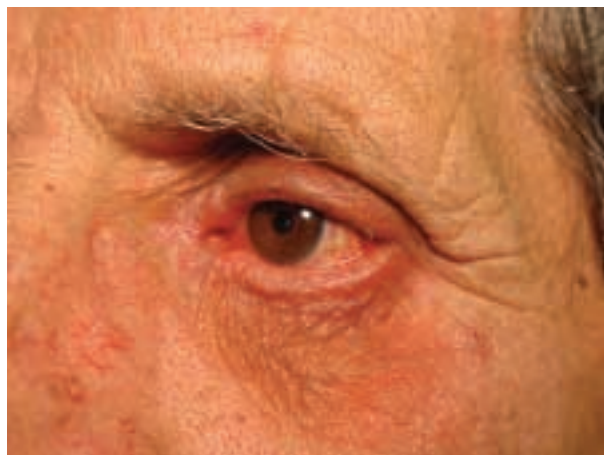
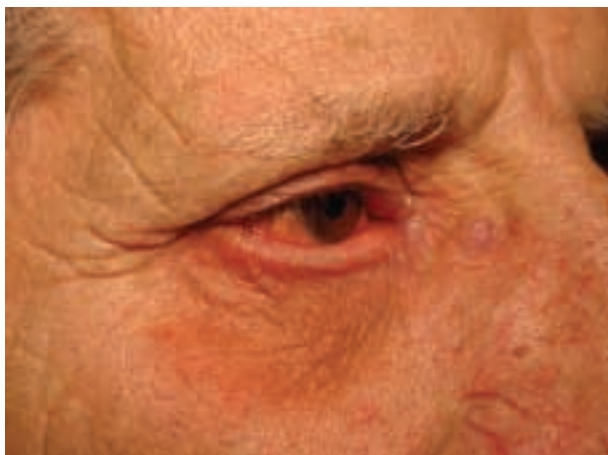


Fig. 2 y 3: View of the eyelids after two weeks of treatment with fluocinilone acetone (Gelidina) three times a day for 14 days. The scab and exudative lesions have disappeared.

ted summary of safety information, 1992). However, the literature describes cases of bronchial spasm and worsening of asthma after the topical administration of Ketorolac to patients who were allergic to NSAIDs or who associated intolerance to aspirin, asthma and nasal polyps (Triad ASA) (4). Therefore, precaution must be exercised when administering Ketorolac to patients with normal sensitivity to acetylsalicylic acid, derivatives of phenylacetic acid or other NSAIDs because crossed sensitivity may appear.

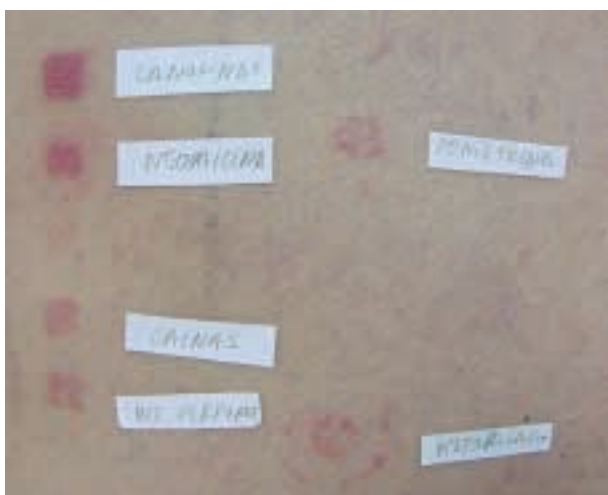


Fig. 4: Allergy skin tests, «True test» for Ketorolac, Norfloxacin and Phenylephrine. The «True test» with undiluted eye drop solution was positive for Ketorolac (lower right) and Phenylephrine. The patient exhibited sensitivity to wool alcohols, mixtures of caines and neomocine.

With systemic administration, the quinolones exhibit adverse effects including gastro-intestinal upset, arthropathy in young patients, interstitial nephritis, hematuria, kidney failure, etc. A relevant characteristic of quinolones is their phototoxicity which seems to be the action mechanism causing cutaneous photosensitivity, mainly in elderly people with concomitant conditions which have required prolonged previous antibiotic treatment. We have found in medical literature only one case of eyelid edema and slight reddening of the eye after the topical administration of ciprofloxacin in a study of 31 cases which had adverse effects to quinolone.

The case presented herein is the first we know of a bilateral contact allergic eczema involving the four eyelids after the administration of 0.5% Ketorolac tromethamol.

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