

9. Subiza J, Subiza J L, Alonso M et al. Allergic contact dermatitis to chamomile tea. *Ann Allergy* 1990; 65: 127-132.
10. Benner M, Lee H. Anaphylactic reaction to chamomile tea. *J Allergy Clin Immunol* 1973; 52: 307.
11. Casterline C L. Allergy to chamomile tea. *JAMA* 1990; 244: 332.
12. Subiza J, Subiza J L, Hinojosa M et al. Anaphylactic reaction after the ingestion of chamomile tea: a study of cross reactivity with other Compositae pollens. *J Allergy Clin Immunol* 1989; 84: 35.

Allergic contact dermatitis from apraclonidine

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Key words: allergic contact dermatitis; glaucoma; apraclonidine hydrochloride; medicaments; ophthalmics; autoxidation. © Munksgaard, 1998.

Apraclonidine hydrochloride, a derivative of clonidine, is a relatively selective α_2 -adrenergic agent with few systemic side-effects, used principally in the treatment of glaucoma, and particularly in cases of intolerance to β -blockers or miotics, uncontrolled pressure despite traditional therapy, and the need to postpone surgery. It is presently available to us for clinical use as 0.5% apraclonidine (Iopimax[®], Alcon Lab, Spain).

Case Reports

Case no. 1

An 83-year-old woman, with glaucoma and awaiting surgery, was treated with 0.5% apraclonidine and timolol. 15 days after beginning this treatment, she presented with ocular pruritus, conjunctival and palpebral edema, erythema and lacrimation, which disappeared 7 days after stopping these drugs. 15 days later, patch tests were performed using TRUE TestTM (Pharmacia, Sweden), 0.5% apraclonidine as is, and benzalkonium chloride. 2 and 3 days later, she reacted to nickel sulfate (+++), formaldehyde (++), quaternium-15 (++) and 0.5% apraclonidine. The positive reaction to 0.5% apraclonidine consisted of erythema and papules which persisted for 7 days. 25 subjects were tested as controls with negative results.

Case no. 2

A 65-year-old woman received 0.5% apraclonidine and timolol to treat raised intraocular pressure. 4 months later, she developed ocular pruritus with palpebral edema, erythema and tearing. Apraclonidine was stopped and symptoms disappeared 5 days later. Patch

tests were carried out with 0.5% apraclonidine on 2 different occasions, but no reaction was noted.

Discussion

A high incidence has been reported of adverse reactions to topical 0.5% and 1% apraclonidine, ranging from 21% to 48% (1, 2). In this regard, 1% apraclonidine seems to be more hazardous than 0.5% or 0.25% (2, 3). The positive patch test in case no. 1 supports a delayed hypersensitivity mechanism (Type IV). It has been suggested that intermediate metabolites of apraclonidine, resulting from apraclonidine oxidation, are responsible (4, 5).

References

1. Gross R L, Pinyero A, Orengo-Nania S. Clinical experience with apraclonidine 0.5%. *J. Glaucoma*. 1997; 6: 298-302.
2. Butler P, Mannschreck M, Lin S, Hwang I, Alvarado J. Clinical experience with the long-term use of 1% apraclonidine. Incidence of allergic reactions. *Arch Ophthalmol* 1995; 113: 293-296.
3. Nagasubramanian S, Hitchings R A, Demailly P, Chun-iaud M, Pannarale M R, Pecori-Giraldi J, Stodtmeister R, Parsons D G. Comparison of apraclonidine and timolol in chronic open-angle glaucoma. A 3-month study. *Ophthalmology* 1993; 100: 1318-1323.
4. Thompson CD, Vachaspati P R, Kolis S P, Gulden P H, Garst M E, Wiese A, Munk S A, Harman W D, Macdonald T L. A proposed mechanism for *p*-aminoclonidine allergenicity based on its relative oxidative lability. *Chem Res Toxicol* 1997; 10: 1032-1036.
5. Thompson C D, Macdonald T L, Garst M E, Wiese A, Munk S A. Mechanisms of adrenergic agonist induced allergy bioactivation and antigen formation. *Exp Eye Res* 1997; 64: 767-773.