



LETTERS

Editor, Canadian Journal of Optometry

I would like to alert your readers to an apparent solution-induced complication for wearers of gas permeable contact lenses.

In the past several weeks, a number of my patients have presented with histories of recent onset of symptoms of burning, lacrimation and discomfort, either immediately on insertion of lenses, or after a few hours' wear. All wore gas permeable contact lenses; all were long time users of Soaclens soaking and wetting solution.

Examination revealed some or all of the following signs: superficial punctate keratitis, edema and spectacle blur. In a number of cases, the lenses showed rough and coated surfaces not of the type usually due to wear.

Polishing of lens surfaces and a change of the lens hygiene system appears to have resolved the problems.

Common to all cases were (i) wearing gas permeable lenses and (ii) a recent change to the new formulation of Soaclens soaking and wetting solution from the previous Soaclens formula. The major change in formula appears to be a change from the use of thimerosal 0.004% to the use of benzalkonium chloride 0.01% as part of the preservative system. There has been discussion in the past suggesting that benzalkonium chloride might, at times, produce changes in gas permeable lenses, or possibly in the cornea.^{1,2,3,4}

The purpose of this communication is to alert practitioners to a possible adverse effect of the use of this new formulation with gas permeable lenses. The incidence of this effect is not known, since this report involves only a small sample of patients who presented with problems. Practitioners, however, would be well-advised to monitor patients for such adverse effects and to report them to the *Canadian Journal of Optometry* if such do occur.

It would seem advisable that a study of the new Soaclens be undertaken using animal corneas and, if negative, that a prospective study then be initiated.

References

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Editor, Canadian Journal of Optometry

Thank you for the opportunity to respond to Dr. Langer's letter related to the new Soacleans formulation. Dr. Langer had discussed this matter personally with me stating he had written a letter to the *Canadian Journal of Optometry*.

The experience of Dr. Langer is puzzling and we are currently thoroughly evaluating the possible cause of this problem. The product has undergone careful clinical evaluations with more than 500 patients using various types of silicone-acrylate gas permeable lenses. Many of the patients in the trials used the product for up to one year. During these clinical trials, we did not encounter any of the problems described by Dr. Langer. In addition, the product is presently marketed successfully in several European countries and has been used with all available hard gas permeable lenses.

Our investigation related to this anomalous finding of Dr. Langer is not complete and, as yet, we can not make any definitive statements. However, sufficient preclinical and clinical studies have been conducted to assure the safety and efficacy of the product.

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