

SHORT COMMUNICATION

Controlling blepharospasm effect during applanation tonometry using the Volk SuperField Lid Lens Adapter

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PURPOSE. *To describe a practical clinical technique that can be used to control the effect of blepharospasm during applanation tonometry.*

METHODS. *The Volk Superfield NC Lid Lens Adapter is used to keep the eye open and prevent the squeezing effect of orbicularis oculi in blepharospasm.*

RESULTS. *This helpful tool can be used when blepharospasm becomes a problem that interferes with accurate intraocular pressure measurement.*

CONCLUSIONS. *The technique is potentially useful and relatively easy to perform. (Eur J Ophthalmol 2006; 16: 861-2)*

Key Words. *Applanation, Blepharospasm, Lid Lens Adapter*

Accepted: June 20, 2006

INTRODUCTION

Blepharospasm is an important source of error when using Goldmann-type applanation tonometry (1). Using manometric study by cannulating the anterior chamber in a human subject about to undergo enucleation, Coleman and Trokel registered an increase in intraocular pressure to over 80 mmHg with lid squeezing (2). We describe a practical technique to reduce the effect of blepharospasm during Goldmann applanation tonometry using the Volk Superfield NC Lid Lens Adapter.

METHODS AND RESULTS

The Superfield Lid Lens Adapter is a ring of about 2.5 cm in diameter. Before the start of the examination, the muscles are usually reasonably relaxed and permit the placement of the ring on the eyelids supported by the hands of the examiner, which can gently rest on the orbital bones. This action itself may

stimulate blepharospasm, which will be mainly around the ring. As the prism of the tonometer approaches the eye, there will be more lid squeezing action, which will further fixate the ring in place. The ring then will work as a stud that keeps the eye open and stopping the orbicularis oculi muscles from increasing the intraocular pressure. Applanation can usually be performed at this point if the examiner notes that neither the ring nor his or her fingers are pressing on the globe (Fig. 1, A and B). Alternatively, it is possible to pull the adapter (with the contracted lids around it) slightly and gently backward and then perform tonometry.

DISCUSSION

Measuring the intraocular pressure for patients with blepharospasm is not usually a problem for the experienced practitioner and may take no more than reassurance. In some occasions; however, taking an ac-

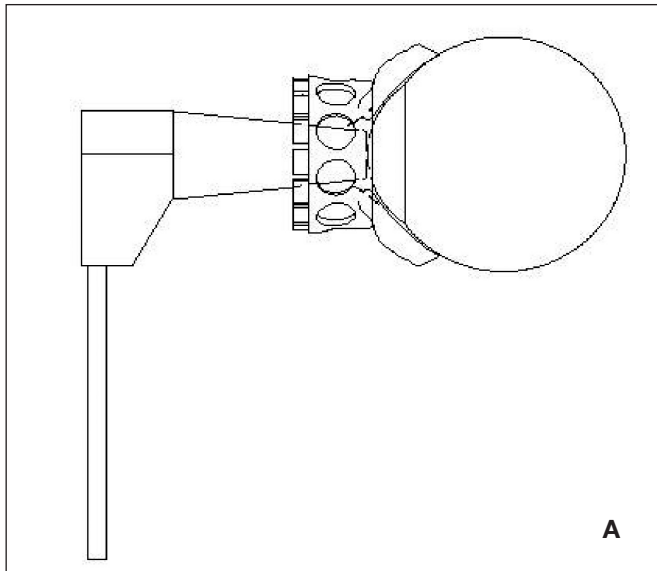
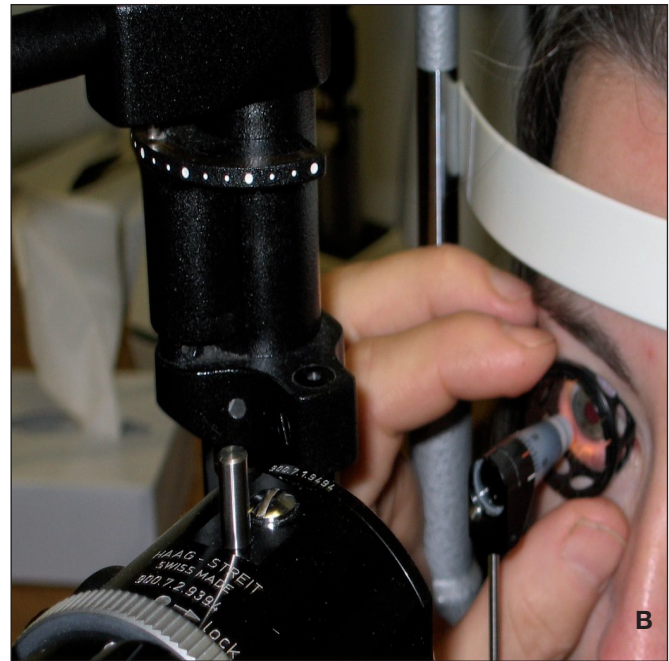


Fig. 1 - Position of Lid Lens Adapter to control lid squeezing effect.



curate intraocular pressure reading can prove a challenge. For these occasions we find this technique potentially useful and relatively easy to perform.

The authors have no proprietary interest in the content of this article.

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