

Treatment of Infections

All the studies mentioned have been concerned with prevention.

Would povidone-iodine be effective in treating an ongoing ocular infection?

There had never been a controlled randomised trial of the use of povidone-iodine to treat ocular infections. While conjunctivitis often is innocuous in the developed world, in developing areas, the infection can lead to corneal scarring and blindness from a number of causes, including a lack of appropriate antibiotics, malnutrition, vitamin A deficiency, trachoma, rubeola, and trauma.

To investigate the use of povidone-iodine in the treatment of paediatric conjunctivitis, 459 children were studied in Manila, Philippines.¹¹ This trial is believed to be the largest controlled investigation of conjunctivitis treatment ever reported. Povidone-iodine 1.25% ophthalmic solution, applied four times daily, was compared with the effect of an antibiotic combination (neomycin-polymyxin-B-gramicidin). As determined by 'time to cure', povidone-iodine was as effective in the treatment of bacterial conjunctivitis, marginally more effective against chlamydial conjunctivitis ($p = 0.057$), but equally ineffective against viral conjunctivitis. Povidone-iodine 1.25% ophthalmic solution can, therefore, be used to treat bacterial and chlamydial conjunctivitis, especially in emerging countries where topical antibiotics are unavailable or costly.

New investigations are underway to evaluate the effectiveness of povidone-iodine to treat corneal infections. These studies have the potential of decreasing the frequency of blindness from corneal infections and subsequent corneal scarring – the most frequent cause of preventable paediatric blindness in developing countries.

Practical Application

Povidone-iodine is readily available worldwide, either as a powder or as a 10% solution. Depending on the type of application, for ophthalmic use, the solution must be diluted to the appropriate strength. The diluent may be a balanced salt solution or other appropriate diluent.

It is important to avoid the detergent version of povidone-iodine generally used as a skin antiseptic, since this solution will adversely affect the cornea.

In summary, povidone-iodine ophthalmic solution has been proven effective before (5% solution) and after ocular surgery (1.25%), at birth (2.5%), and for some

forms of conjunctivitis (1.25%). Investigations of its use in treating other types of ophthalmic infections are continuing. The use of povidone-iodine in ophthalmic practice continues to reduce the incidence of blindness in children and adults throughout the world.

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The Epidemiology of Eye Disease

Second Edition

(See also page 32)

Edited by

Gordon J Johnson, Darwin C Minassian, Robert A Weale, Shiela K West

In his Forward to this Second Edition of *The Epidemiology of Eye Disease*, Alfred Sommer refers to this 'instant classic' which now has a new and updated Edition.

There was great need for this authoritative book when first published in 1999, reflecting the lack of published reference texts in the field of epidemiology and eye disease and the prevention of the world's common blinding diseases. Gordon Johnson, then Director of the International Centre for Eye Health (ICEH), London, Darwin Minassian (ICEH) and Robert Weale (King's College and University College Hospital, London) are now joined, for the Second Edition, by Shiela West (Wilmer Eye Institute, The Johns Hopkins University, Baltimore, USA).

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D D Murray McGavin

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