

Endophthalmitis after penetrating ocular injury caused by hypodermic needles

Dear Editor,

With reference to your inclusion of an abstract on Penetrating Needle Injury of the Eye Causing Cataract in Children (*J Comm. Eye Health* Vol. 16, No. 47, 2003), we would like to add our concern to this as a public health issue.

The causes of penetrating eye injuries in developed and developing countries are different. In developed countries, it has been reported that the commonest location for injury is the home. But in developing countries, where there are not enough parks or gardens for children, the streets become their playing areas, far away from adult supervision.

Children can turn any kind of object into a toy. In our hospital we treated three patients injured by hypodermic needles which had been turned into water squirting toys. Patient 1, a 5 year old girl, was referred to our hospital 16 hours after the injury. On admission, her visual acuity was light perception (LP). She was found to have scleral injury and endophthalmitis. Pars plana vitrectomy was performed and intraocular antibiotics given. After 6 months follow-up, her visual acuity was 20/100 and the eye was otherwise normal. Patient 2, a 4-year old girl was admitted to our hospital two days after injury. Her visual acuity was LP and she was also found to have endophthalmitis and cataract. Pars plana vitrectomy + lensectomy were performed with intraocular antibiotics. Patient 3, a 4-year old boy, referred to our hospital 4 days after trauma, had no light perception (NLP) on admission and had endophthalmitis. The patient's family refused ocular surgery due to poor prognosis and only palliative treatment was given. Injured eyes of patients 2 and 3 resulted in phthisis after 1 year follow-up.

Hypodermic needles, as the cause of penetrating eye injuries, are a cause for concern for a number of reasons: the potential source of organisms; the small, non-painful nature of this type of penetration decreases the suspicion of globe penetration and may result in late referral; and the socioeconomic aspect of this type of injury is as serious as the medical side. Injection needles have no place in streets where children can easily find them. The attention of environmental officers and the education of the public with the cooperation of parents, educators, and health professionals

can go some way to preventing this type of injury and preserving children's sight.

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Povidone-iodine

Dear Editor,

With reference to the report by Sherwin J Isenberg and Leonard Apt in *J Comm Eye Health* Vol.16, No.46, 2003: I would like to add that povidone-iodine 5% solution can only be used pre-operatively after a local anaesthetic has been given as otherwise it is too painful.

I would like to ask for clarification on the strength of the eye drops for prophylaxis of ophthalmia neonatorum. The WHO/PBL manual *Local Small Scale Preparation of Eye Drops, (Eye Drops Update 2002)*, advises a 1% solution of povidone-iodine and not 2.5%.

The same manual suggests povidone-iodine 1% for routine treatment of conjunctivitis and not 1.25%. The problem with the stronger concentrations is that they are painful to use and, therefore, compliance will tend to be less, certainly in children.

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Editor's Note

We have asked Alistair Bolt, Consultant for the WHO/PBL manual, *Eye Drops Update 2002*, to respond to this concern.

Dr Hogeweg is correct to say that 5% povidone-iodine drops are only suitable for use after a local anaesthetic, as instillation causes stinging and an acute red eye.

Concentrations of povidone-iodine of 1% to 1.25% cause transient stinging, and a 2.5% drop is definitely uncomfortable. If used for bacterial conjunctivitis, compliance with the 2.5% drop would be low, the 1% strength would be tolerable. However, there has not been any published research on using 1% povidone-iodine for the prophylaxis of ophthalmia neonatorum.

The 5% drop in the WHO Manual *Eye Drops Update 2002* is only for prophylaxis prior to surgery, the 1% drop is included as a broad spectrum antibacterial.

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New Standard List

The Standard List of Medicines, Equipment, Instruments, Optical Supplies and Educational Resources for Primary and Secondary Level Eye Care Services 2004/2005 will be available in January 2004.

The List, which has been produced under the auspices of the VISION 2020 Technology Group, aims to cover the essential equipment, instruments and supplies for primary and secondary (district) level eye care.

The Standard List will also be available on the following websites: www.v2020.org and www.iceh.org.uk. To receive a paper copy, please send details of your name, postal address and occupation to the address below. Readers who have previously been placed on the mailing list to receive Standard List updates will automatically receive the 2004/2005 Standard List.

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