Preoperative Lidocaine Gel

Dear Editor:

We were interested to read the article by Moss et al.1 Their study looked at whether the antibacterial effect of povidone-iodine drops could be augmented by topical gatifloxacin prior to intravitreal drug injection. We are concerned that one aspect of the study protocol may inadvertently increase the risk of endophthalmitis in the study patients.

In the study, all patients received sterile lidocaine gel anesthesia before povidone-iodine drops were applied. Povidone-iodine has been demonstrated to be an effective bactericidal agent prior to intraocular surgery.2,3 However, lidocaine (or other) gel anesthetic can form a physical barrier over the conjunctiva, thus preventing the povidone-iodine from reaching the conjunctival flora. This was illustrated in a recent laboratory study that demonstrated that povidone-iodine was effective at killing bacteria on agar plates, but had little effect if lidocaine gel was administered beforehand. The authors concluded that lidocaine gel appears to form a barrier that prevents the povidone iodine from coming into contact with the conjunctival bacteria.4

It has been shown that resident conjunctival flora may be inoculated into the eye at the time of surgery and result in acute postoperative endophthalmitis.5 If gel anesthesia is used, surgeons should ensure that any gel is placed on the ocular surface after povidone-iodine application.

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References


Author reply

Dear Editor:

We appreciate the letter by Drs. Awotesu and Eke regarding our paper. They bring up an important point regarding the possibility that lidocaine gel application prior to application of povidone-iodine may form a physical barrier over the conjunctiva, thus preventing the povidone-iodine from reaching the conjunctival flora. This question was not evaluated in this study. The study cited1 was an in vitro study in which lidocaine gel was administered immediately prior to povidone-iodine application on a blood agar plate. The clinical implication is unclear to our patient population. In our clinics, the lidocaine gel is used not only to reduce discomfort due to the injection, but also to reduce the discomfort from the povidone-iodine (which many patients feel is the most uncomfortable part of the procedure). We apply the povidone-iodine approximately 10 minutes after applying the lidocaine gel at which point the gel has become more liquefied, possibly reducing the barrier effect. Alternative treatments would include using viscous tetracaine, or simply topical proparacaine or tetracaine solution. Further in vivo study is necessary comparing these alternatives in terms of their effect on the ability of povidone-iodine to reduce conjunctival flora.

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Reference


Tuberculous Uveitis

Dear Editor:

We read with interest the article by Ang et al1 on the diagnosis of tuberculous uveitis with the interferon-gamma release assay (IGRA). We have concerns regarding the study methodology adopted by the authors. First, there is ambiguity regarding the clinical gold standard used to test the efficacy of the QuantiFERON-TB Gold In-tube (QFT) assay (Cellestis Inc., Carnegie, Australia). The abstract mentions that the treatment response to anti-tuberculosis therapy was used to estimate the accuracy of both QFT and tuberculin skin test (TST) in the diagnosis of tuberculous uveitis. But later, in Table 2, and in the discussion section, the authors have stated that TST alone with suspected clinical ocular findings of tuberculosis (TB) was used as the clinical gold standard. These statements are contradictory and need to be clarified.

We are also concerned about the use of latent TB infection as a surrogate for the diagnosis and treatment of ocular TB. The term latency refers to an in vivo situation where bacteria and the host have established a balanced state without causing apparent symptoms in the host.2 It does not say anything about the metabolic or growth status of the tubercle bacilli in the host. To date, it has not been possible to isolate tubercle bacilli in persons with latent TB infection. A recently published report by the TBNET (a group of European TB researchers) has defined latent TB infection as a state of persistent immune response to previously acquired Mycobacterium tuberculosis antigens without evidence of clinically manifest TB.3 Such persons do not develop clinically manifest disease either because their immune system persistently controls dormant living mycobacteria or because they are no longer infected with living bacteria. Thus, a positive TST or IGRA result only indicates a “lasting...

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