

Immediate sequential bilateral intravitreal injections: an Indian perspective

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Dear editor

Recently, Ruão et al¹ have shown in a study spanning 6 years that only 1 of 6560 (0.015%) eyes undergoing unilateral intravitreal anti-vascular endothelial growth factor (anti-VEGF) injection developed culture-proven endophthalmitis. None of the 1612 eyes receiving immediate sequential bilateral intravitreal treatment (ISBIVT) with anti-VEGF injection developed endophthalmitis.¹ Likewise, immediate sequential bilateral cataract surgery (ISBCS)² has been proposed to provide “potentially decreased wait times for surgery, patient convenience and cost savings for health care payors”, with comparable visual outcomes and complication rates. However, in an Indian scenario, there is need for discussion regarding endophthalmitis following ISBIVT injections.

According to the guidelines of the All India Ophthalmological Society (AIOS)³ for intravitreal injections, “It is recommended to do the injection procedure in an operation theater or a sterile room designated for such procedures taking all precautions as are taken for any intraocular surgery. We do not recommend intravitreal injection Bevacizumab in an office setting”. According to this guideline, “bilateral injections are NOT recommended and injection for the other eye should be planned at least one week later”.³ This guideline was framed following an unfortunate episode of cluster endophthalmitis in the state of Gujarat, India, after the use of intravitreal bevacizumab (IVB). Subsequently, the use of IVB was banned by the Drug Controller General of India in January 2016. However, after multiple meetings between leaders from AIOS and the Vitreoretinal Society of India and officials from the Government of India, the ban was withdrawn in March 2016. In an Indian scenario, the risk of bilateral endophthalmitis following ISBIVT injections, – though small, cannot be ignored, given the fact that many patients receiving the injections already have very good visual acuity before the injection. It may invite medicolegal problems for the practicing ophthalmologist also. Tabatabaai et al⁴ have reported 2 cases of bilateral endophthalmitis caused by *Staphylococcus epidermidis* after IVB; one patient achieved 20/400 visual acuity in both eyes, while the other patient did not improve from the perception of light bilaterally. Even with current advances in management, the visual outcome of endophthalmitis remains poor, and the patient with endophthalmitis caused by *Streptococcus pneumoniae* in the current series reported by Ruão et al¹ achieved only 20/500 visual acuity. However, another large series from New York⁵ on ISBIVT anti-VEGF injection reported that the incidence of culture-proven endophthalmitis was 0.065% (2 of 3068 total injections), and all such cases improved to preinjection visual acuity. The rate of infectious endophthalmitis after intravitreal anti-VEGF injections has been noted to reach up to 0.078%.¹ Thus,

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the available literature^{1,5} on large series of patients undergoing ISBIVT injections suggests similar complication rates and safety levels compared to unilateral anti-VEGF injections, although thorough and individualized consideration of patient safety and local regulations may be needed before performing ISBIVT injections in clinical practice.

Disclosure

The author reports no conflicts of interest in this communication.

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