# Comment on: "Safety of Office-Based Lens Surgery: A U.S. Multicenter Study"

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[1] The increase in volume of cataract surgery being provided each year, and the trend towards operating at an earlier stage of cataract progression has meant that understanding the safety profile of both ambulatory and office-based cataract and refractive lens surgery is of growing importance.

Quality of care as pertains to post-cataract infection involves achieving a low rate of endophthalmitis, but also dealing well with those infections that do still occur. Kugler et al. are to be congratulated on their impressive reported rate of postoperative endophthalmitis of 0.028% following cataract and refractive lens surgery in office-based centres.[1] However, concerns remain that office-based centres may be unable to offer the same consistency of access to emergency eye care as ambulatory centres within larger hospital organisations; when endophthalmitis does occur, there may be greater delays in initiating antibiotic therapy.

We recently evaluated factors impacting delays in management of infectious endophthalmitis after cataract surgery and intravitreal injections (IVI). Data was collected for patients presenting to a UK-based tertiary referral centre that had developed bacterial culture-positive endophthalmitis within 42 days of cataract surgery or IVI between 2013 and 2023. The time elapsed between the onset of endophthalmitis symptoms and the commencement of intravitreal antibiotic therapy was compared for patients that had undergone cataract surgery

or IVI at ambulatory and hospital day-case facilities, and those from centres offering only limited procedure-based services analogous to office-based centres.

The results are shown in table 1.

The low incidence reported by Kugler et al. demonstrates that endophthalmitis is a rare complication in both ambulatory and office-based settings.[1] However, when endophthalmitis does occur, early presentation to services and timely initiation of intravitreal antibiotics is essential for achieving favourable visual outcomes.[2]

In order to argue for the safety of office-based services, both a low incidence of infection, and a robust method for early detection and prompt management are necessary. Our audit data suggests that, compared to ambulatory centres, patients that develop endophthalmitis following cataract surgery or IVI at office-based centres may be at risk of greater delay in commencing intravitreal antibiotics. We speculate that delays in management are likely a result of smaller office-based centres lacking the capacity to facilitate around the clock emergency eye care, causing patients to wait longer to access services.

If office-based surgery is to prove its safety, appropriate postoperative pathways must be established to ensure that patients do not experience delays accessing emergency eye care. We would encourage those evaluating the safety of surgical services to consider not only the rate of infection but also the ease with which patients can access the definitive management of intravitreal antibiotics.

**Table 1. Time elapsed between the onset of symptoms and the commencement of intravitreal antibiotic therapy.**

| | **Ambulatory/Hospital -based Centres** | **Office-based Centres** |
|---|---|---|
| **Cataract surgery** | | |
| Cases of endophthalmitis | 5 | 4 |
| Sex (Female:Male) | 3:2 | 3:1 |
| Mean age in years (SD*) | 79.4 (11.1) | 77.3 (14.9) |
| Mean days elapsed between onset of symptoms and antibiotic therapy (SD) | 1.00 (0.63) | 2.25 (0.96) |
| | | |
| **Intravitreal injections** | | |
| Cases of endophthalmitis | 6 | 3 |
| Sex (Female:Male) | 3:3 | 1:2 |
| Mean age in years (SD) | 77.5 (6.41) | 73.3 (10.8) |
| Mean days elapsed between onset of symptoms and antibiotic therapy (SD) | 1.16 (1.17) | 1.33 (0.58) |
| | | |
| **Total (cataract surgery and intravitreal injections)** | | |
| Cases of endophthalmitis | 11 | 7 |
| Sex (Female:Male) | 6:5 | 4:3 |
| Mean age in years (SD) | 78.4 (8.41) | 75.6 (12.4) |
| Mean days elapsed between onset of symptoms and antibiotic therapy (SD) | 1.09 (0.94) | 1.86 (0.90) |

*SD = standard deviation

References


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2. Michael E, Welch S, Niederer RL. Rapid treatment of endophthalmitis with intravitreal antibiotics is associated with better vision outcomes. *Clin Exp Ophthalmol*. 2023;51(2):137-143. doi:10.1111/ceo.14186