

Sir,
Reply to Alexander *et al* (Subconjunctival anaesthesia for intravitreal injections)

We would like to thank Alexander *et al*¹ for their interest in our study. We reported the incidence, features and outcomes of post-intravitreal anti-VEGF endophthalmitis (PIAE) in a prospective, population-based study to provide ophthalmologists with important clinical information. We also performed a case-control study to identify risk factors, as this is recognised as a valid methodology to identify possible risk factors for rare conditions.²

Our conclusions regarding the use of subconjunctival anaesthesia are based on the analysis of 3 out of 47 PIAE cases compared with 1 out of 200 control cases receiving this anaesthesia.³ Although this study reports one of the largest known series of PIAE, due to the relatively small number of patients with individual risk factors, it was not possible to fit our results to a multivariate model (as acknowledged in our paper). However, of these four patients, other than all four not receiving pre-procedural antibiotics, none were reported to have any of the other potential risk factors. After excluding these four patients, the other risk factors (failure to administer topical antibiotics immediately post-injection, blepharitis, patient squeezing, and failure to administer pre-procedural topical antibiotics) had no significant change in respective odds ratios (ORs). Therefore, it would be difficult to attribute the large OR of 13.669 for subconjunctival anaesthesia to confounding risk factors alone.

We hypothesised that a possible explanation for subconjunctival anaesthesia as a risk factor was that it compromised the conjunctival surface before intravitreal injection, allowing the introduction of pathogens into the subconjunctival space.

We read with interest your experience in Southampton. The incidence rate of 0.07% that you report is comparable to our reported rate of 0.025%. However, by only reporting the incidence rate at a single centre, it is unclear whether any of the other risk factors that we analysed in our paper have been controlled for. Therefore, it is not possible to make any further conclusions on whether the use of subconjunctival anaesthesia is a risk factor for PIAE based on the data you supply. One cannot ascertain the effect that individual risk factors will have on the incidence rate of PIAE based on the odds ratio calculated as part of the case control study that we performed.

Owing to the anonymous way the information is collected through the British Ophthalmological Surveillance Unit, we were unable to ascertain whether subconjunctival anaesthesia was the standard of care at the reporting institutions. Further evidence of risk factors for PIAE is always welcome. Comparing the figures from your centre to others, where subconjunctival anaesthesia is not used, in a matched, case-control study may provide firmer evidence as to whether subconjunctival anaesthesia is a significant risk factor.

Conflict of interest

The authors declare no conflict of interest.

References

- 1 Alexander P, Sahu D, Lotery AJ. Subconjunctival anaesthesia for intravitreal injections. *Eye* 2013; **27**(9): 1109.
- 2 Fletcher AE. Case-control design: making the case. *Am J Ophthalmol* 2010; **149**: 540–542.
- 3 Lyall DA, Tey A, Foot B, Roxburgh ST, Viridi M, Robertson C *et al*. Post-intravitreal anti-VEGF endophthalmitis in the United Kingdom: incidence, features, risk factors and outcomes. *Eye (Lond)* 2012; **26**: 1517–1526.

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Sir,
Kyrieleis plaques in herpes zoster virus-associated acute retinal necrosis: a case report

Kyrieleis plaques were described in 1933 in ocular tuberculosis.¹ They have been primarily described in association with infections of the retina, *Toxoplasma gondii* chorioretinitis being the most common.² Other described associated causes include cytomegalovirus (CMV) retinitis, syphilitic retinitis, acute retinal necrosis (ARN) due to Herpes Simplex Virus-2, Varicella-Zoster Virus, and Rickettsia conorii infections.^{3–5} Orzalesi and Ricciardi⁶ suggested they are an immune response, resulting from deposition of immune cells and inflammatory debris in arterial walls. Others have debated this hypothesis as these plaques can persist despite resolution of the infection and treatment with steroids.⁷

Case report

A 56-year-old immunocompetent male presented with a 2-day history of decreased vision and floaters in the left eye. His past ophthalmic history included a single episode of Herpes Zoster Ophthalmicus in his right eye 3 months previously, which was successfully treated with 1 week of oral acyclovir.