

adjusting for length of stay and other factors, we found that a hospital's cumulative cataract surgery volume was not associated with endophthalmitis risk.<sup>5</sup>

Despite the limitations of the administrative data used by Fang *et al*, we applaud their investigative approach. Such population-based methodologies provide large unbiased samples that are necessary to properly investigate uncommon but serious problems such as postoperative endophthalmitis.<sup>2,6</sup>

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#### Sir,

## Hospital and surgeon operation volume associated with endophthalmitis

We thank Dr Ng et al. for their interest and comments on our report. In our study, we use a broader definition as: codes of endophthalmitis in subsequent outpatient visits or admissions, or at the index cataract surgery were considered as the occurrence of postoperative endophthalmitis. Concerning the use of this definition, for we believe that postoperative endophthalmitis is not necessarily treated in admission, and this condition can also be treated in outpatient visits. Unlike EPSWA study and other previous studies using hospital-based data or define admission for endophthalmitis as the occurrence of postoperative endophthalmitis.<sup>1–3</sup> If we use the definition as EPSWA study for endophthalmitis as the index of occurrence, we would exclude patients that were only treated in outpatient clinics but not in hospitals. Therefore, the incidence of postoperative endophthalmitis will be underestimated. The 2-year incidence of postoperative endophthalmitis in Taiwan will be 0.26%. It is similar to Dr Ng's report.

Different from what Dr Ng pointed out, we did consider the length of stay as an important factor and control this variable in Cox regression analysis in our study, as presented in Table 4 of our previous article.<sup>4</sup> In our study population, there were 88.1% outpatient cataract surgery and 11.9% inpatient cataract surgery with  $1.53 \pm 0.80$  days of the mean length of stay. As the percentage of inpatient cataract surgery was relatively low and the length of stay was short, we used 'site of operation' as the variable and divided patients into the outpatient and inpatient cataract surgery categories. Even after we adjusted site of operation and other factors, we found that hospital volume and surgeon volume were still significantly associated with endophthalmitis risks. Unlike EPSWA report,<sup>5</sup> we found that inpatient cataract surgery posed a higher risk for postoperative endophthalmitis than outpatient cataract surgery in hospital volume model (HR = 1.33, P = 0.014), but not in surgeon volume model (HR = 1.25, P = 0.065).

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#### Sir,

# Delayed radial keratotomy dehiscence following uneventful phacoemulsification cataract surgery

A 73-year-old female was referred with cataracts. Bilateral radial keratotomy (RK) had been performed 9 years previously for high myopia; on her left eye this had been supplemented with astigmatic keratotomies. Best-corrected visual acuities were 6/36 right eye and 6/12 left eye. She had bilateral moderate nuclear sclerotic cataracts. Fundoscopy showed healthy discs with a right epiretinal membrane and normal left macular. She chose to have left cataract surgery following detailed discussion with specific mention of complications associated with previous RK.

Routine phacoemulsification cataract extraction was performed under subtenons anaesthesia. The clear corneal main incision was located temporally between RK incisions and was secured at the end of the procedure with a single 10/0 Vicryl suture. She was examined



Figure 1 Sutured radial keratotomy incision with bandage contact lens *in situ*.

before discharge and had a deep anterior chamber and negative Siedel's test. Acetazolamide 250 mg was given for postoperative IOP prophylaxis.

Day one review showed a shallow anterior chamber with two Seidel positive temporal RK incisions. She was taken to theatre and one incision closed with a 10/0 nylon suture and a bandage contact lens inserted (Figure 1). Four months postoperatively her visual acuity is 6/6 with refraction  $-0.25/-2.00 \times 7.5$ 

### Comment

Previous RK not only complicates intraocular lens power selection due to unintentional postoperative hyperopia and postoperative hyperopic shift,<sup>1</sup> but can also reduce corneal tensile strength. RK incision dehiscence has been reported during phacoemulsification cataract surgery<sup>2-4</sup> corneal transplantation<sup>5</sup> and following blunt trauma including car airbag inflation.<sup>6</sup> Previous reports suggest considerable variability in corneal strength following RK.<sup>2-8</sup>

We are aware of three published cases of RK incision rupture *during* phacoemulsification cataract surgery. Budak *et al*<sup>2</sup> reported RK incision dehiscence in a patient who had RK 11 months before cataract surgery. This occurred during construction of a 3.0 mm incision that intersected one of the radial incisions. Following suturing of the wound, the remainder of the procedure was uneventful. In the other two cases, RK dehiscence occurred during the phacoemulsification stage.<sup>3,4</sup> In all cases there was very good visual rehabilitation.

The reason why delayed RK dehiscence occurred in our patient is not known. The astigmatic keratotomy incisions traversing radial cuts will have further weakened the cornea compared with simple RK. As trauma to the eye is unlikely because the clear shield was only removed at the day one examination, we speculate