

- (3) The Javitt et al incidence excluded those patients younger than 65 years; those having diabetic retinopathy; those who underwent cataract extraction combined with corneal, retina, and glaucoma procedures; and those having a secondary implant.
- (4) The Kattan and Javitt et al studies were retrospective, while a prospective national study<sup>5</sup> was published in 1991, which described a 0.31% PE incidence in France; and, another prospective national study<sup>6</sup> gave a 0.3% PE incidence in England, in 1993. Years later, much higher PE incidences were published.<sup>7–10</sup>

There seems to be enough information for considering a redefining of the 'normal PE incidence in cataract surgery', especially, taking into account the knowledge achieved since 1991 about PE risk factors.

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## Sir, Postphacoemulsification endophthalmitis — role of residual debris in the handsets used for surgery

We read with great interest the article by Leslie *et al*,<sup>1</sup> since we have also been dealing with a cluster of endophthalmitis at our tertiary care centre in South India. In all, 10 patients (0.18% of 5706 procedures) developed culture-proven postphacoemulsification endophthalmitis between January and August 2003, following surgery by seven surgeons, at three dedicated eye operation theatre complexes. No breach of our sterilization protocols was noted. Since the rate of infection in nonphacoemulsification cataract surgeries during the same time period was 0.02% (1 of 4335 surgeries), suspicion was directed at the phacoemulsifiers and associated equipment. We hence performed the following experiments.

After routine scrubbing and gloving, sterile Ringers lactate solution (Sri Krishna Keshav Laboratories, Gujarat, India) was flushed through the irrigation and aspiration lines of the autoclaved phacoemulsification and IA handsets. The washings were sent for microbiological analysis, and were centrifuged (Remi Laboratory Centrifuge, India) for deposits. In the seven pairs of phacoemulsification and IA handsets studied, only the irrigation tubes were flushed in two sets, thus providing 24 samples. Although fluid samples taken directly from the bottle were sterile, the flushings were culture positive in 16 instances (*Alkaligenes fecalis* in one and *Acinetobacter calcoaceticus* in the rest). Similar organisms were isolated in 10 eyes with postphacoemulsification endophthalmitis (*A. fecalis* in five and *A. calcoaceticus* in two, *pseudomonas stutzeri* in two and *pseudomonas aeruginosa* in one eye). The sediments from the washings revealed the presence of deposits, 5–40 µm in size, which were needle shaped and suggestive of lens matter. To further confirm the presence of such debris in the handsets, we procured a flexible

fibreoptic microendoscopic probe (Storz) with a diameter of 1 mm, to visualize the inner surface of the irrigation and aspiration tubes of five phacoemulsification handsets. Irregular plaque-like deposits were observed in all aspiration tubes, mostly in the middle one-third segment. Similar deposits were also noted at the junction of the irrigation and aspiration tubes, in one of the probes.

We thus concur with Leslie *et al*<sup>1</sup> that deposits in the phacoemulsification and IA handsets may contribute to postoperative inflammation, not all of which may be sterile. The use of a fibreoptic probe is a useful aid in the investigation of such epidemics of postphacoemulsification endophthalmitis.

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