

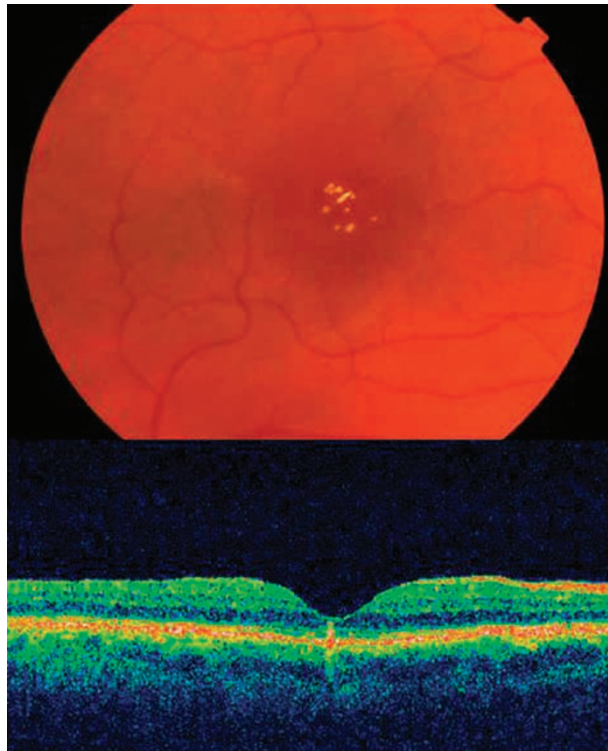
Sir,  
**Diamonds are forever!**

Internal limiting membrane (ILM) delamination using a diamond-dusted ILM scraper is a common technique. It is usual to have retained intraretinal synthetic diamonds post-operatively.

#### Case report

A 64-year-old woman was referred with decreased central vision in her right eye. On examination, she read 6/60 right and 6/6 left. Fundoscopy demonstrated a stage 3 macular hole in her right eye.

Risks and benefits of macular hole surgery were discussed and the patient elected to undergo a pars plana vitrectomy, internal limiting membrane (ILM) peel, and insertion of C2F6 gas. Briefly, the surgery was as follows: a 3-port pars plana vitrectomy was initially completed. Trypan blue was placed onto the macula for 3 min under air. Following air–fluid exchange to remove residual trypan blue, an ILM flap was raised by gently brushing across the temporal macula using a diamond-dusted ILM scraper (Dorc Inc.), grasped with Eckardt forceps, and ILM delamination completed as a rhexis. Surgery was completed with a fluid-C2F6 exchange (16%). The patient was discharged home the following day and requested to posture face down for 7 days.



**Figure 1** Colour photograph and 2D OCT demonstrating the presence of retained iridescent synthetic diamonds at the fovea of the right eye.

Four weeks postoperatively, the vision had improved to 6/18 right. The macular hole had closed, but there were multiple iridescent intraretinal crystals at the fovea (Figure 1), consistent with retained diamonds from the diamond-dusted ILM scraper.

#### Comment

Since the early 1990s, pars plana vitrectomy has been widely accepted as the treatment for idiopathic macular holes.<sup>1</sup> Removal of the ILM is now widely practised following the reported increased success with this technique.<sup>2</sup> Various methods of staining now widely employed to aid visualisation, and ability to complete the delamination of ILM are utilised including trypan blue (0.06%), indocyanine green dye (0.5%), and infracyanine green.<sup>3,4</sup>

To achieve the initial flap of ILM for peeling, many techniques are described including the use of sharp blades (microvitrectomy blades), blunt retinal picks (Michels), ILM dissection spatula, and diamond-dusted ILM scrapers.<sup>5</sup>

This report describes for the first time an iatrogenic diamond maculopathy secondary to retained diamonds post macular hole surgery. The presence of retained synthetic diamonds, however, did not preclude either anatomical closure of the macular hole or the improvement in distance visual acuity at 18 months postoperatively.

Vitreoretinal surgeons should be aware of such appearances post macular hole surgery when using diamond-dusted ILM scrapers.

#### References

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