

The very high PCO levels in the study may not be reflective of the real world. The literature for AcrySof demonstrates consistently low Nd:YAG rates both in randomized controlled trials and in large registry-based studies, which offer an insight into real-world clinical practice.³ For example, Ursell and associates⁴ (n = 52,162) showed that 3-year incidence of Nd:YAG capsulotomy was lowest for the AcrySof lens at 2.4% (Table). While similar conclusions on the AcrySof platform were drawn in a further large cohort study in Finland⁵ (n = 10,044) (Table).

In Leydolt and associates' description of PCO in the introduction of their paper, PCO is characterized as being associated with decreased visual function. However, the resulting PCO scores and analysis that follow, the reasons for which are aforementioned, should not be viewed in this context. We believe that these considerations should have received further treatment in this article, which, in our view, would lead to furnishing the reader with a better understanding of the results presented.

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FUNDING/SUPPORT: NONE. FINANCIAL DISCLOSURES: THE authors have neither proprietary nor commercial interests in any medications or materials discussed. No conflicting relationships exist for any author. All authors attest that they meet the current ICMJE criteria for authorship.

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Reply to Comment on: Posterior Capsule Opacification With Two Hydrophobic Acrylic Intraocular Lenses: 3-Year Results of a Randomized Trial



WE READ WITH GREAT INTEREST THE COMMENT ON OUR study “Posterior capsule opacification with two hydrophobic acrylic intraocular lenses: 3-Year results of a randomized trial.” Although puzzled about some inconsistencies of the authors' statements (generally low posterior capsule opacification [PCO] rates with no real clinical significance, but then stated very high PCO levels), we can hereby dispel the authors' concerns.

This is a randomized controlled trial (RCT) study that assessed not a “real-world clinical significance” but a scientific statistical significance of the main outcome of the study—that is, posterior capsule opacification. Although the intensity of PCO indeed correlates well with visual acuity and contrast sensitivity,¹ this study aimed at evaluating morphologic-anatomic differences between the 2 intraocular lens (IOL) implants compared—which is PCO, with functional tests like visual acuity included only as a subordinate secondary outcome.

RCTs are the “gold standard” of evidence-based medicine and are superior to retrospective data evaluation of, for example, electronic medical record data, minimizing selection bias and confounding. It is also very interesting that the authors stated that they were concerned about the presentation of differences in Nd:YAG capsulotomy rates between 2 IOL groups as a major finding, considering that these were clearly nonsignificant. First, Nd:YAG capsulotomy rates were not the main outcome of this study (unlike the objective PCO rate); and second, this would implicate that nonsignificant data are not worth being published. In fact, this would support what has been proven in the past: that studies showing statistically significant differences in the results are more likely to be published than those not arriving at such differences between study groups—a fact that is well known in the scientific world and termed “publication bias.”²

The assessment of PCO is a well-validated method described in many studies in the literature.³ The AcrySof IOL has shown very consistent and comparable AQUA scores assessing long-term PCO and Nd:YAG capsulotomy rates in the past: PCO 1.4 ± 1.1, YAG 18.6% in this study, compared to 0.9 ± 1.3, 21.7%⁴; 1.9 ± 1.4, 13.7%⁵; and 1.7 ± 1.7, 16%.⁶

As mentioned above, Nd:YAG capsulotomy rates were a secondary outcome in this study and data were provided as

an additional information as usual. However, care must be taken, as the Nd:YAG capsulotomy rate itself is not a useful parameter when evaluating PCO development. Not only the lack of a standardized medical indication but also a variety of factors can influence the final decision on a Nd:YAG capsulotomy: Is it based on only visual symptoms of the patient, definition of decreased vision, ability to perform a YAG capsulotomy, economic reasons, etc. In the present study we tried to minimize indication bias by using a decrease in best-corrected visual acuity to >0.1 logMAR and subjective patient complaints of photic symptoms or reduced visual acuity.

Even in our study population, where patients were instructed and urged to come back to our department in case of visual complaints, we were not capable to see all patients before their YAG capsulotomy; but some still had it done at external ophthalmic offices, with no information for which indication (ie, for a correct indication). So what about the cited retrospective studies with varying sites, practitioners, ill-defined indications, variable postoperative time, and so forth? Isn't the need for an objective factor like PCO and a prospective randomized controlled study design with an intraindividual comparison obvious?

To demonstrate the inferiority of YAG rates as an index for PCO performance, here is an example taken out of the cited studies by the authors of the comment: a YAG rate of 3.7% (Acrysof) and 7.8% (Tecnis) after 1 year (Horn et al, presented poster; No 2 in the table) and on the other hand 2.4% (Acrysof) and 5.1% (Tecnis) after 3 years (Ursell et al; No 1 in the table). We are all entitled to our own opinion on this.

To conclude, one must distinguish between evidence-based studies and "real-world studies." The current study was carried out using an established objective and sophisticated method for the assessment of PCO—prospective intraindividual comparison of 2 different IOLs in a randomized controlled trial using objective evaluation of PCO as the main outcome.

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CONFLICT OF INTEREST DISCLOSURES: SEE THE ORIGINAL article for any disclosures of the authors.

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Comment on: Nonexudative Perifoveal Vascular Anomalous Complex: The Subclinical Stage of Perifoveal Exudative Vascular Anomalous Complex?



EDITOR:

IT WAS WITH GREAT INTEREST WE READ THE ARTICLE BY Sacconi and associates¹ in which they describe the pre-exudative stage of the exudative perifoveal vascular anomalous complex. The authors describe 6 eyes of 6 patients with nonexudative perifoveal vascular anomalous complex (nePVAC), of whom 4 patients were followed for a mean of 21 ± 14 months. Three of those 4 patients developed exudative PVAC (ePVAC) after 15 ± 9 months. Based on those 3 patients, the authors concluded that nePVAC may represent a pre-exudative stage of ePVAC.

However, as the authors noted as well, spontaneous resolution of exudation may occur in some cases.^{2,3} We recently described 21 patients with PVAC after a follow-up of 24 ± 14 months.⁴ In 9 of those 21 patients we observed changes in exudation during follow-up. In 2 of 6 patients without exudation at presentation, exudation appeared during follow-up. However, in 7 of 15 patients with exudation at presentation, spontaneous resolution of exudation during follow-up was observed. In 3 of those 7 patients, the PVAC lesion even completely disappeared.

We agree with the authors that nePVAC and ePVAC should be considered part of the same entity, namely PVAC, that warrants monitoring with multimodal imaging. Based on previously published work^{2,3} and our data,⁴ believe, however, that nePVAC does not have to be a pre-exudative stage of ePVAC, as both appearance and spontaneous resolution of exudation may occur. PVAC is most likely not a stationary disease and may show a sequence of changes. The exudation associated with the PVAC lesion is therefore likely to depend on the moment of time in the evolution of PVAC.

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