

# Long-term prognosis of polypoidal choroidal vasculopathy (PCV) with a 5-year remission after an initial combination therapy

Kikushima W, Sakurada Y, Yoneyama S, et al. *Photodiagnosis Photodyn Ther.* 2021;35:102453. doi:10.1016/j.pdpdt.2021.102453

This retrospective review investigated the visual prognosis of patients with PCV with a 5-year remission after an initial combination therapy involving photodynamic therapy (PDT) and intravitreal ranibizumab (IVR) or aflibercept injection (IVA).



Medical records of 69 consecutive patients with PCV treated with PDT with IVR/IVA were retrospectively reviewed, and 17 eyes were identified with a 5-year remission after the initial combination therapy.

- The eyes that did not require additional treatment during the first through the fifth year were assigned to the remission group.
- The eyes requiring additional treatment during the first through the fifth year were assigned to the recurrence group.

The choice of VEGF inhibitors depended on time; IVR was administered from May 2009 to December 2012, and thereafter, IVA was administered from January 2013 to January 2014.

All eyes were initially treated with IVR or IVA, followed by PDT after a 1-week interval. The PDT spot size was determined by adding 1000  $\mu\text{m}$  to the greatest linear dimension (GLD) covering the polypoidal lesions and branching vascular networks on ICGA.

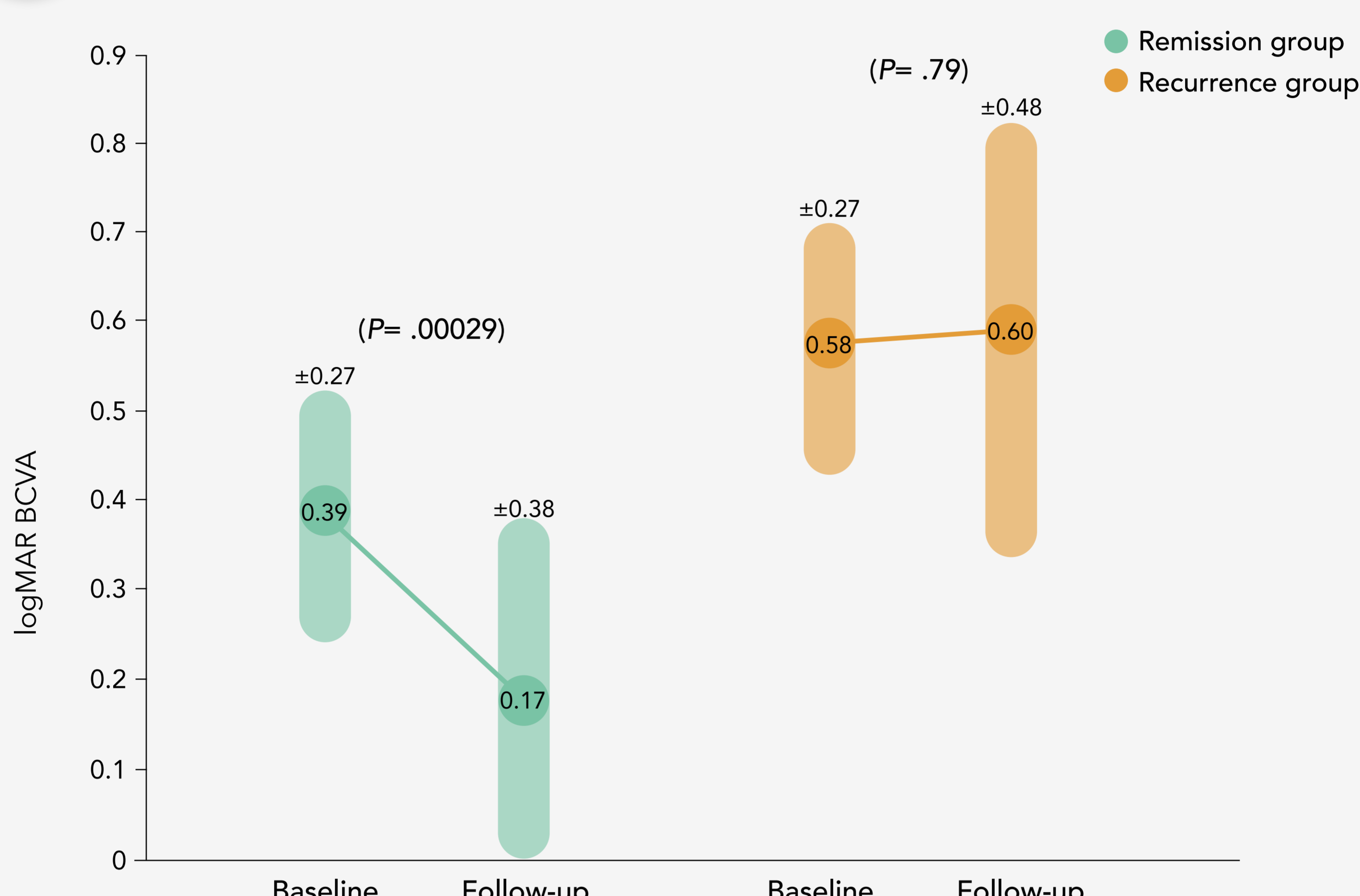


Fifteen minutes after the verteporfin injection, a 689-nm wavelength light pulse was delivered using a diode laser unit (Visulas PDT system 690S, Carl Zeiss AG, Oberkochen, Germany) for 83 s with an intensity of 600 mW/cm<sup>2</sup>. After the initial treatment with PDT/IVR or PDT/IVA, patients were followed-up every 3 months until they required retreatment for recurrent exudation, including subretinal or intraretinal fluid on SD-OCT and a new hemorrhage in the subretinal space or beneath the retinal pigment epithelium seen on an ophthalmoscope.

ICGA = indocyanine green angiography.

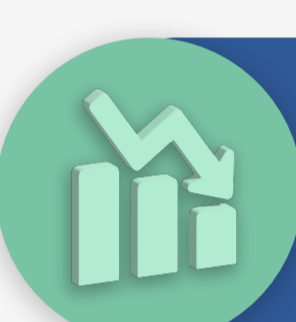


The mean logarithm of the minimal angle resolution best-corrected visual acuity (logMAR BCVA) significantly improved in the remission group, whereas the mean logMAR BCVA was maintained throughout the 7-year follow-up period in the recurrence group.

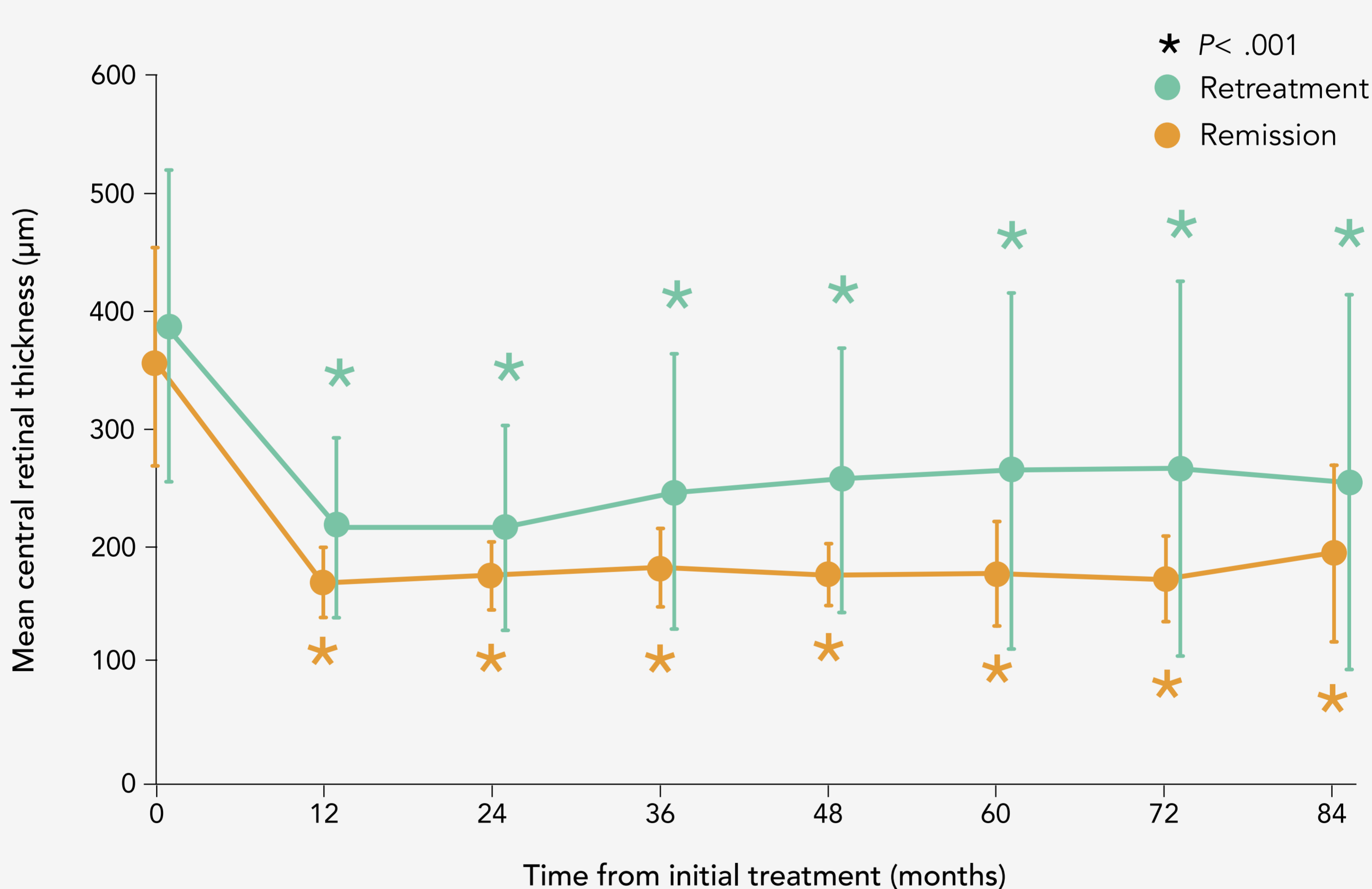


In the remission group, only two (11.8%) of the 17 eyes experienced recurrence during the fifth through the seventh year. Comparison of baseline characteristics between the two groups revealed that:

- A higher proportion were female ( $P = .012$ )
- A better baseline BCVA ( $P = 3.1 \times 10^{-3}$ )
- Lower risk allele frequency in *ARMS2 A69S* ( $P = .029$ ) were observed in the remission group.

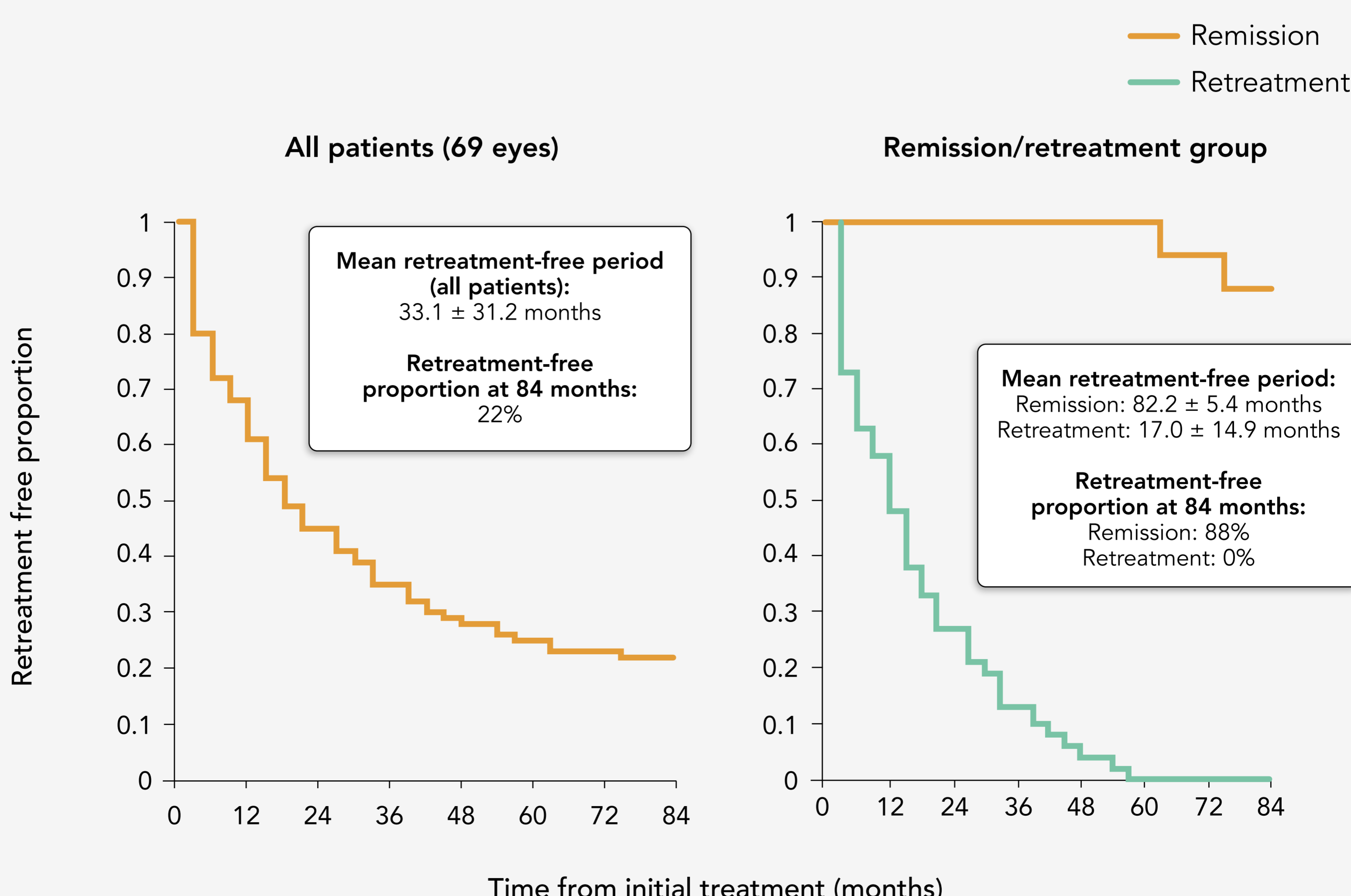


Mean CRT significantly decreased and was maintained from baseline through the 7-year follow-up period in both groups.



Participants not requiring retreatment up to 5 years from baseline rarely showed recurrence during the subsequent 2-year follow-up, and the significant improvement in mean BCVA was maintained throughout the 7 years.

## Retreatment-free proportion in overall participants and remission/retreatment group during the 7-year follow-up period



## Conclusions

The combination therapy showed a favourable outcome for PCV over a 7-year follow-up, especially in the eyes without recurrence during the first through the fifth year. Physicians should be careful of recurrent exudation in the eyes without recurrence during the first through the fifth year, although the recurrence rate was low.