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FOVEAL AVASCULAR ZONE AREA CHANGES AND OCT ANGIOGRAPHY AFTER 27 G PARS PLANA VITRECTOMY FOR IDIOPATHIC EPIRETINAL MEMBRANE

Oral

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Purpose:

The present study aimed to assess the feasibility and safety of 27G pars plana vitrectomy, for idiopathic epiretinal membrane by investigation of foveal avascular zone (FAZ) after surgery, and to evaluate the correlation between FAZ and visual outcomes using optical coherence tomography angiography, in post-vitrectomized eyes.

Methods:

This retrospective case-control study included 11 eyes (11 patients) with IERM, that were successfully removed with a pars plana vitrectomy 27G (air tamponade), as uncomplicated surgical procedure. The changes of FAZ were examined by OCTA after surgery. The FAZ area was investigated with OCT angiography in the superficial capillary plexus and deep capillary plexus. The unaffected fellow eye was used as a control group.

Results:

Reduction in superficial FAZ area size were significantly in IERM group (superficial: $101.298 \pm 77.516 \mu\text{m}$) following surgery. Reduction in the deep FAZ area was also markedly in the IERM group ($91.247 \pm 79.027 \mu\text{m}$).

FAZ area of the affected eye was significantly smaller than that of the healthy fellow eye and negatively correlated with postoperative BCVA.

Conclusions:

Reduction in the FAZ area size after successful surgical removed ERM may indicate that there is more ischemic damage to retinal capillary plexus in fovea. The results of our study indicate that 27G PPV with ILM peeling is minimally invasive for IERM and reliable postoperative BCVA recovery.