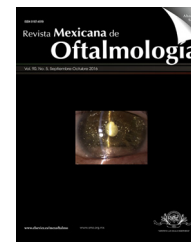




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ORIGINAL ARTICLE

The effectiveness of continuous intravitreal adrenaline as mydriatic adjuvant on pars plana vitrectomy in diabetic patient, a randomized clinical trial

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KEYWORDS

Diabetic retinopathy;
Pars plana
vitrectomy;
Adrenaline;
Pupil dilatation;
Normalized pupillary
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Abstract

Introduction: Dilated pupil is an important factor for good visualization during pars plana vitrectomy (PPV) in patients with diabetic retinopathy. Despite its side effects, intravitreal adrenaline has been used to maintain pupil dilation.

Objective: To assess the effect of intravitreal adrenaline infusion on pupil dilation in patients with diabetic retinopathy undergoing PPV.

Methods: This study included 30 eyes of 30 patients with progressive diabetic retinopathy underwent PPV. Pupils of all eyes were dilated by topical application of a combination of 1% tropicamide and 2.5% phenylephrine, and eyes were randomized 1:1 to continuous intravitreal infusion of adrenaline (0.5 mg/500 ml in balanced salt solution) or vehicle control. Surgical procedures were recorded with a high definition video recorder. Normalized pupillary area (NPA) was measured on recorded images before and at the end of surgery.

Results: Post-operative NPA differed significantly between the two groups ($p=0.04$). By contrast, pre-operative NPA ($p=0.81$) and changes in NPA ($p=0.17$) did not.

Conclusion: Intravitreal infusion of adrenaline did not have a significant effect on pupil dilation, compared with non-adrenaline, in patients with diabetic retinopathy undergoing PPV.

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