

# Effect of Repeated Intravitreal Injections in Glaucoma Spectrum Diseases [Letter]

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## Dear editor

We have read the paper written by Vilares-Morgado et al on the Effect of Repeated Intravitreal Injections in Glaucoma Spectrum Diseases.<sup>1</sup> We congratulate all authors who have provided important information that helps readers understand the relationship between repeated intravitreal injections (IVI) with anti-vascular endothelial growth factor (anti-VEGF) and the development of glaucoma in eyes with glaucoma spectrum diseases (GSD). The research is quite important considering the number of eye diseases treated with intravitreal injections is increasing and injection of fluids into the eye can cause an increase in intraocular pressure (IOP), which is a major risk factor for glaucoma.<sup>2</sup>

The study conducted by Vilares-Morgado et al used a retrospective, single-center, and longitudinal study by performing procedures for intravitreal injections, coding was carried out by trained medical coders based on information reported in medical records.<sup>1</sup> The methods used were in accordance with goal to be achieved, but we would like to recommend prior patient identification and confirmed or suspected glaucoma in both eyes receiving unilateral intravitreal injections. The primary outcome measure was the difference in the degree of retinal nerve fiber layer (RNFL) thinning in injected eyes versus non-injected eyes. The effects of post-injection increase in Intra Ocular Pressure (IOP), injection frequency, and number of injections were also evaluated.<sup>3</sup>

In this study, Vilares-Morgado et al found that the proportion of eyes receiving glaucoma treatment increased significantly in eyes that were injected compared to eyes that were not injected.<sup>1</sup> Therefore it is necessary to be careful when using this intravitreal drug, although there is still little evidence available regarding long-term effects on RNFL thickness. Some reduction in RNFL thickness appears to occur after intravitreal anti-VEGF injection, but the clinical relevance of this finding remains unclear. The effect of intravitreal injection on glaucoma is not clinically significant, but caution should be exercised when treating patients with advanced glaucoma.<sup>2</sup>

In conclusion we agree that increased treatment of glaucoma eyes may represent significant RNFL thinning over time. Therefore it must be monitored regularly and closely as well as regular evaluation of the optic nerve to allow early detection of glaucoma development.<sup>1</sup> Another thing that needs to be considered is the time point of intravitreal injection around eye trauma, as this can cause various retinal pathologies, in addition to it should be considered carefully when testing treatments in ocular trauma models and in treating ocular trauma patients.<sup>4</sup>

## Disclosure

The authors report no conflicts of interest in this communication.

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