



# Intravitreal Bevacizumab in Vitreous Hemorrhage and Diabetes Mellitus

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## Dear Editor,

The recent report on “Intravitreal Bevacizumab in Vitreous Hemorrhage and DM” is very interesting.<sup>1</sup> Alagöz et al.<sup>1</sup> noted that “intravitreal bevacizumab was found effective in cases with vitreous hemorrhage secondary to proliferative diabetic retinopathy in terms of reducing the need for surgery and increasing the rate of subjects to whom panretinal photocoagulation could be applied in the early period, although there was no impact on final visual acuity”.<sup>1</sup> There is no doubt that intravitreal bevacizumab can be a good alternative management. However, there are many concerns. First, the cost of intravitreal bevacizumab is high and it is an issue for further assessment of cost effectiveness. Second, although there is no serious complication due to intravitreal bevacizumab administration, subconjunctival hemorrhage is common and becomes an issue for consideration in diabetes mellitus cases.<sup>2,3</sup> Also, in cases with underlying severe diabetes mellitus, possible unwanted gastrointestinal side effects have been reported.<sup>4</sup> Onoda et al.<sup>4</sup> suggested that “ophthalmologists should apply alternative therapies instead of intravitreal bevacizumab to patients with severe diabetes mellitus”.

**Keywords:** Bevacizumab, vitreous hemorrhage, diabetes mellitus

## Ethics

Peer-review: Internally peer-reviewed.

## Authorship Contributions

Surgical and Medical Practices: Beuy Joob, Viroj Wiwanitkit, Concept: Beuy Joob, Viroj Wiwanitkit, Design: Beuy Joob, Viroj Wiwanitkit, Data Collection or Processing: Beuy Joob, Viroj Wiwanitkit, Analysis or Interpretation: Beuy Joob, Viroj Wiwanitkit, Literature Search: Beuy Joob, Viroj Wiwanitkit, Writing: Beuy Joob, Viroj Wiwanitkit.

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## Response from the Authors

Dear Editor,

We thank Drs. Beuy Joob and Viroj Wiwanitkit for their commentary on our article "The Efficacy of Intravitreal Bevacizumab in Vitreous Hemorrhage of Diabetic Subjects". In our study, we found that intravitreal bevacizumab was effective in vitreous hemorrhage secondary to diabetic retinopathy in terms of reducing the need for surgery and increasing the rate of panretinal photocoagulation (PRP) completion in the early period.<sup>1</sup> It has been demonstrated that treatment with only intravitreal anti-vascular endothelial growth factor (anti-VEGF) in proliferative diabetic retinopathy (PDR) patients did not result in worse results compared to PRP treatment alone in 2 years follow-up; that is, PRP was not found superior to intravitreal anti-VEGF treatment.<sup>2</sup> Therefore, intravitreal anti-VEGF treatment might be considered as an alternative treatment option for PDR patients, though long-term results are needed. Drs. Beuy Joob and Viroj Wiwanitkit rightly pointed out that intravitreal anti-VEGF treatment is an expensive treatment; however, compared to a vitrectomy surgery, intravitreal bevacizumab is still more cost effective. Like all other intravitreal injection applications, intravitreal bevacizumab may also result in various complications. Subconjunctival hemorrhage is among the most common, but it does not have any impact on visual acuity or the course of the disease. It is well-known that a reduction occurs in serum and plasma-free VEGF levels after intravitreal anti-VEGF injections,<sup>3</sup> and that there is an increased risk of artherothrombotic events after systemic use of anti-VEGF agents. Fortunately, meta-analysis could not demonstrate any increased risk in clinical practice.<sup>4</sup> This is mostly because high-

risk patients such as subjects with a history of recent myocardial infarction or cerebrovascular event were not involved in the studies. In our clinical practice, we also do not administer any kind of intravitreal anti-VEGF treatment to those high-risk patients.

Best Regards

**Cengiz Alagöz, Yusuf Yıldırım, Murat Kocamaz, Ökkeş Baz, Uğur Çiçek, Burcu Çelik, Halil İbrahim Demirkale, Ahmet Taylan Yazıcı, Muhittin Taşkapılı**

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