

FELLOW EYE EFFECT OF AFLIBERCEPT: A CASE REPORT

EFFET DE L'AFLIBERCEPT SUR L'OEIL CONTROLATERAL : A PROPOS D'UN CAS

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Abstract

This is a case of diabetic macular edema resistant to bevacizumab injections in which an intravitreal injection of aflibercept in one eye was able to reduce the central macular thickness and improve the best-corrected visual acuity in the contralateral eye.

Key-Worlds: Diabetic macular edema; Aflibercept.

Résumé

Nous rapportons le cas d'un œdème maculaire diabétique résistant aux injections intra-vitréennes de bévacizumab. Le switch vers l'aflibercept a permis de diminuer l'épaisseur maculaire centrale et l'amélioration de l'acuité visuelle corrigée au niveau de l'œil controlatéral.

Mots - Clés : Œdème maculaire diabétique ; Aflibercept.

ملخص

قمنا بالتبليغ عن حالة بابلقعة الصفراء المركزية للعينين جراء داء السكري مقاومة للحقن داخل الجسم الزجاجي للعين بواسطة من بيفاسيزوماب. تم تغيير الدواء بواسطة أفليبرسبت فتمكن هذا الأخير من تقليل سماكة البقعة الصفراء المركزية و تحسين حدة البصر المصححة في العين المقابلة.

الكلمات المفاتيح: الوذمة البقعية السكرية ; أفليبرسبت

INTRODUCTION

Diabetic macular edema (DME) is the most common cause of visual loss in persons with diabetic retinopathy [1] and it is increasing in prevalence throughout the world. Vascular endothelial growth factor (VEGF) is an important factor in DME pathogenesis. Many clinical trials proved the efficacy of intravitreal VEGF inhibitors (anti-VEGF) as a therapy for DME.

We present a case of DME resistant to bevacizumab injections in which an intravitreal injection (IVI) of aflibercept in one eye was able to reduce the central macular thickness (CMT) and improve the best-corrected visual acuity in the contralateral eye.

CASE PRESENTATION

A 60 year-old male with type 2 diabetes presented to our department complaining of blurred vision due to a refractory clinically significant macular edema (CSME) in both eyes. He had an history of focal laser treatment for extrafoveal macular edema on the right eye and five IVI of bevacizumab in both eyes. Initial best corrected visual acuity was 1/10 on the right eye and 1/50 on the left eye. Central macular thickness CMT at presentation was 651 μ m and 927 μ m in the right and left eye respectively (figure 1).

An IVI of aflibercept was given in the left eye. After 15 days, best-corrected visual acuity improved in both eyes to 3/10 on the right eye and 2/50 on the left eye. CMT decreased in both eyes to 394 μ m and 420 μ m in the right and left eye respectively (figure 2).

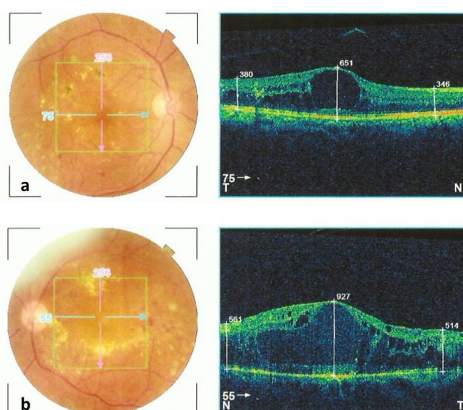


Figure 1 : Fundus photography and optical coherence tomography images before intravitreal injection of aflibercept (a: right eye; b: left eye)

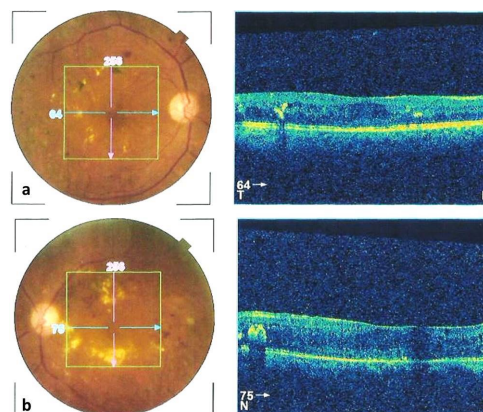


Figure 2 : Fundus photography and optical coherence tomography images after a single intravitreal injection of aflibercept (a: right eye; b: left eye)

DISCUSSION

Anti-VEGF agents are generally first line treatment for center-involving DME [2]. However, some patients present a refractory which is an incomplete response to the anti-VEGF injections. In these cases, one of the options is to switch from one agent to another.

We reported a case of DME resistant to bevacizumab injections in which an IVI of aflibercept in one eye was able to reduce significantly the CMT in the contralateral eye, best corrected visual acuity also improved in this eye. This phenomenon is rare and few similar cases in literature were reported [3]. Other studies [4] reported the same effect with other anti-VEGF such as ranibizumab which is smaller (50KD) than aflibercept (100KD).

CONCLUSION

It could be concluded that aflibercept could escape into the systemic circulation and reduce contralateral CMT.

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