Intrastromal bevacizumab injection for corneal neovascularization in herpetic stromal keratitis

Injection intrastromale de bévacizumab dans le traitement de la néo-vascularisation cornéenne associée à une kératite herpétique stromale

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A middle-aged female with corneal neovascularization due to stromal keratitis that involved visual axis (Fig. 1A), caused by herpes simplex virus, was treated with intrastromal injection of bevacizumab. This off-label use of Avastin® achieved in this case a dramatic regression of the extensive neovascularization of the stroma (Fig. 1B), the lack of recurrence for 6 months and an improvement of the visual acuity.

Topical and subconjunctival administration of bevacizumab were shown to be effective for the treatment of corneal vascularization; however, there is conflicting evidence regarding its efficacy [1]. Absorption after topical administration may be limited as penetration of the drug through an intact epithelium is considered an issue due to its molecular weight [2], and on the other hand, although subconjunctival injections guarantee better delivery, local side-effects have been reported [1].

That’s why, comparing to the other forms of administration, intrastromal injection may possibly allow greater exposure of the corneal vessels to the drug, as well as delivery of a known concentration of the drug [2].
Bevacizumab for corneal neovascularization in herpetic stromal keratitis

Figure 1. A. Stromal keratitis that involved visual axis. B. An off-label use of Avastin® achieved in this case a dramatic regression of the extensive neovascularization of the stroma.

Disclosure of interest

The authors declare that they have no conflict of interest concerning this article.

References