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

Disclosure of interest

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

References


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.