

Bromfenac discussion in its use in Retinal Vein Occlusions

Bromfenac eye drops are primarily known as a nonsteroidal anti-inflammatory drug (NSAID) used for their anti-inflammatory properties, particularly in postoperative situations like cataract surgery. However, their role in the management of retinal vein occlusions (RVO) is less conventional and not as widely established.

Retinal vein occlusions, including central retinal vein occlusion (CRVO) and branch retinal vein occlusion (BRVO), are primarily managed with anti-vascular endothelial growth factor (anti-VEGF) injections, corticosteroids, and laser therapy, depending on the specific characteristics of the occlusion and associated complications like macular edema.

The theoretical rationale for using Bromfenac in RVO could be its anti-inflammatory properties, potentially reducing inflammation and edema in the retina. However, as of my last update in April 2023, there wasn't robust, widely accepted clinical evidence supporting the routine use of Bromfenac eye drops in managing retinal vein occlusions.

It's important to consider the following points:

1. Clinical Evidence: Any emerging evidence on the efficacy of Bromfenac in RVO would typically come from clinical trials or observational studies. There is one paper in 2015 that undertook a case control study which is useful

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Abstract

Background/aims: To evaluate the effectiveness of topical Bromfenac during treatment with intravitreal injections of bevacizumab (IVB) in eyes with macular oedema (ME) secondary to branch retinal vein occlusion (BRVO).

Methods: Prospective interventional case-control study. 48 eyes of 44 patients with ME-BRVO who received 1.25 mg/0.05 mL of IVB showed temporary regression of ME. Additional IVB were given when ME recurred. 24 eyes received topical Bromfenac, and the other 24 eyes received topical saline as control, four times a day during the clinical course of 48 weeks. The clinical course of foveal thickness (FT) as measured by optical coherence tomography, logarithm of the minimum angle of resolution visual acuity (VA), was monitored. The number of IVB was also recorded.

Results: There were no significant differences in FT, VA between the Bromfenac-treated eyes and the control eyes at the initial and final examinations. The number of injections in Bromfenac-treated eyes of **3.8±1.1 times was significantly less than in the control eyes of 4.8±1.2 times.**

Conclusions: Although topical Bromfenac during IVB therapy in eyes with ME secondary to BRVO did not affect the visual prognosis, it had the advantage of reducing the number of injections.

2. Mechanism of Action: While Bromfenac's anti-inflammatory action might theoretically benefit conditions with an inflammatory component, RVO often requires more targeted treatments, like anti-VEGF, which directly address the pathological neovascularization and associated edema.

3. Standard Treatments: Currently, the mainstay of RVO treatment includes anti-VEGF therapy, corticosteroids, and sometimes laser photocoagulation. These treatments are backed by a substantial body of evidence demonstrating their efficacy in managing RVO and its complications, like macular edema.

4. Off-label Use: If Bromfenac is being considered or used for RVO, it would likely be as an off-label application, and its use should be based on a careful evaluation by an ophthalmologist, considering the individual patient's condition and existing medical evidence.

In conclusion, while Bromfenac eye drops might have theoretical benefits in the management of retinal vein occlusions due to their anti-inflammatory properties, their use in this context is not a standard practice as of the latest available data. However it remains an option as in some patients it may decrease the number of injections needed or extend the time interval.

As always, I recommend consulting with a specialized ophthalmologist for the most current and personalized medical advice.

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