

## EFFICACY AND SAFETY OF INTRAVITREAL ANTI-VEGF THERAPY WITH BEVACIZUMAB

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**Introduction:** The intravitreal injection with anti-VEGF (anti-vascular endothelial growth factor) Bevacizumab has now become a routine procedure for retina specialists worldwide, and our department is no exception. The easy availability of this monoclonal antibody molecule has revolutionized the management of various retinal diseases, such as diabetic macular edema, age-related macular degeneration, macular edema following branch and central retinal vein occlusion, myopic choroidal neovascularization, and others.

**Aim of the Study:** The retrospective evaluation of the efficacy and safety of anti-VEGF therapy with Bevacizumab.

**Methods and Materials:** The research involves data synthesis from local and international literature, as well as a retrospective study conducted over 1.5 years from January 1, 2023, to June 30, 2024, at the Department of Ophthalmology and Microsurgery of the Eye, "Sfânta Treime" Municipal Clinical Hospital, involving 467 patients receiving intravitreal bevacizumab.

**Results:** Over the past two years at the Department of Ophthalmology and Microsurgery of the Eye, "Sfânta Treime" Municipal Clinical Hospital, 3265 intravitreal injections of Bevacizumab were performed on 467 patients. The *treat-and-extend* treatment strategy was applied to 358 patients, another 68 patients were treated according to the *fixed* regimen, 29 patients according to the *PRN (Pro re Nata)* tactic, and 12 patients were excluded from anti-VEGF therapy. Repeated treatment imposes an economic and psychological burden on patients, potentially reducing patient compliance rates. Moreover, repeated intravitreal injections can lead to ocular adverse effects, including persistent intraocular pressure elevation, increased risk of retinal pigment epithelium tears, and geographic atrophy.

### Conclusions:

1. The anti-VEGF therapy has changed the outlook for patients with retinal vascular diseases.
2. Concerns persist regarding dosage, timing of injections, and long-term functional outcomes of anti-VEGF intravitreal treatment.
3. Early identification of patients, individualized approaches involving the application of several treatment strategies and high patient compliance are crucial to minimize treatment failures.