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# INTRAOCULAR PRESSURE CHANGES AFTER THE INTRAVITREAL ANTIVASCULAR ENDOTHELIAL GROWTH FACTOR THERAPY

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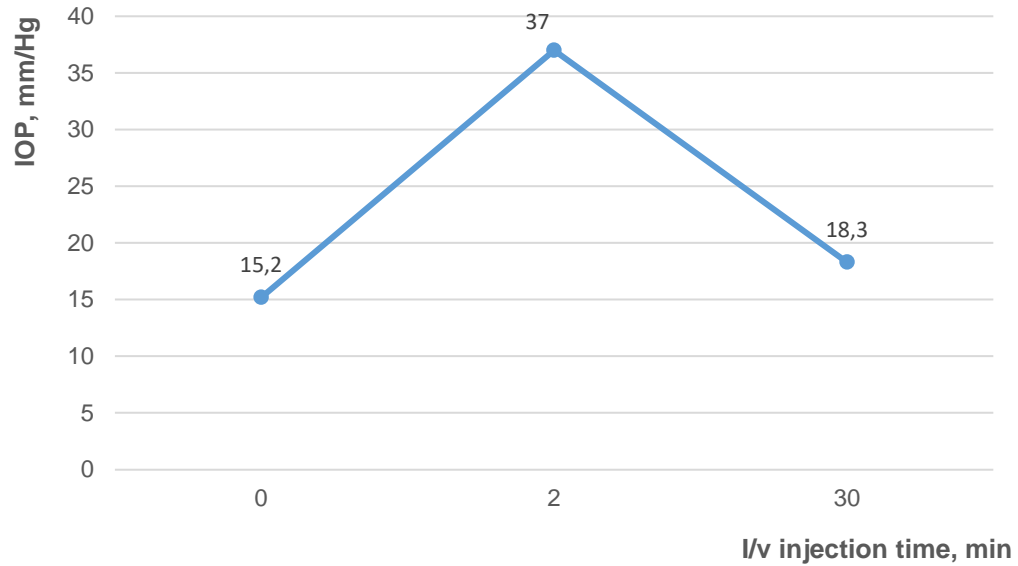
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# The Research

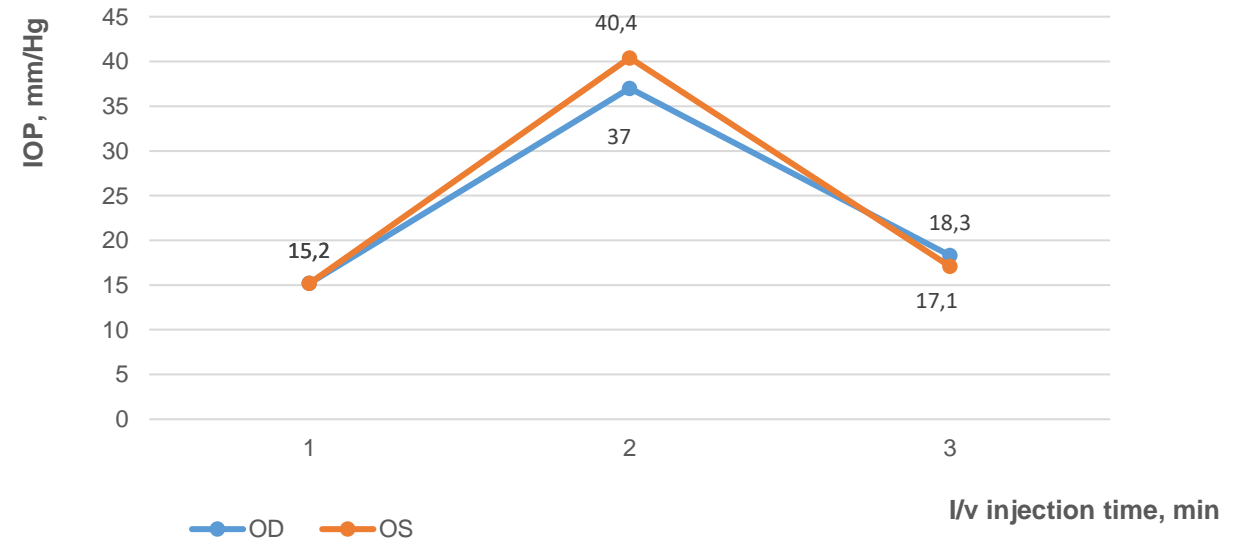
- **Background.** Over recent years intravitreal (i/v) injections of anti-vascular endothelial growth factor (anti-VEGF) agents have been the primary treatment for age-related macular degeneration (AMD) and diabetic maculopathy (DM). It has been well expressed in literature that i/v anti-VEGF agents can lead to a transient elevation of IOP, which usually normalizes within 30–60 minutes in majority of the eyes. The increased IOP and, in particular, its sharp rise in the first minutes after the injection can pose a risk to the patient eye health.
- **Aim of the study.** The aim of the prospective study is to evaluate and compare the dynamics of IOP changes in the eyes with DM and AMD following i/v administration of the anti-VEGF agent Bevacizumab.
- **Methods.** The study included 63 patients who received i/v injections of the anti-VEGF agent Bevacizumab. Patients were divided into two groups, with 35 patients with AMD in the first group and 28 patients with DM in the second one. Patients IOP was measured using the “Icare” tonometer before the i/v injection as well as 2 minutes and 30 minutes after that.

# Research Results (1)

Mean IOP changes in patients after i/v injections in one eye, mm/Hg

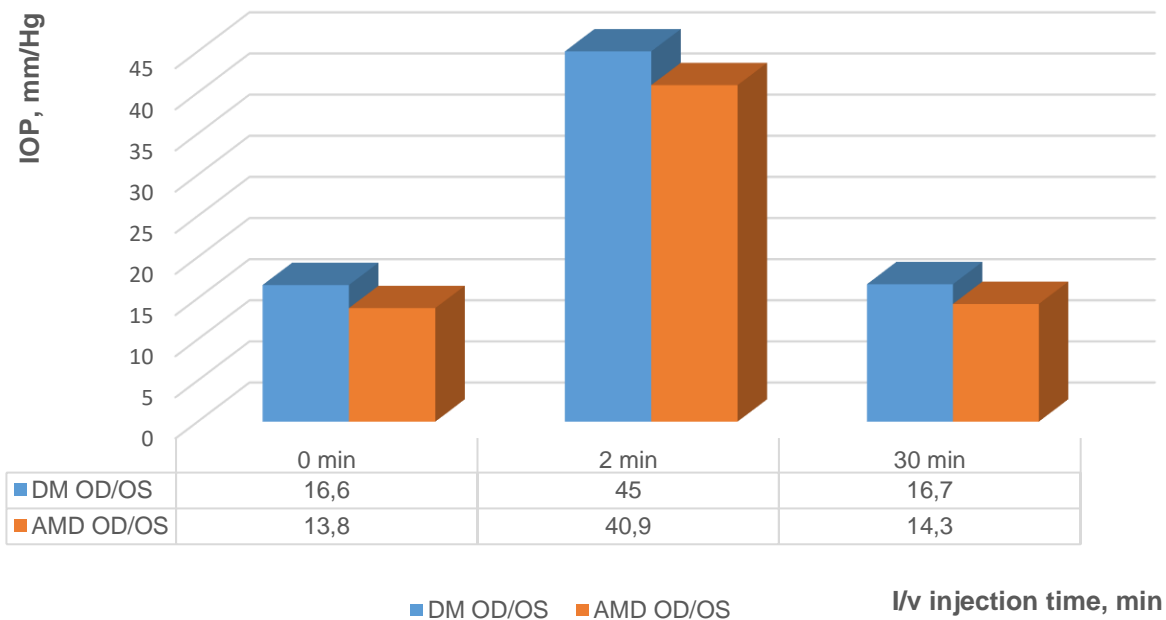


Mean IOP changes in patients after i/v injections in both eyes, mm/Hg



# Research Results (2)

Mean IOP changes in patients with DM and AMD after i/v injections in one eye



Effects of various factors on anti-VEGF agents induced IOP changes

	<i>p value</i> before i/v injection	<i>p value</i> 2 min after i/v injection	<i>p value</i> 30 min after i/v injection
<b>Diagnosis (AMD or DM)</b>			
1. I/v injection in one eye			
OD/OS	,028	,342	,290
2. I/v injections in both eyes			
OD	,216	,562	,742
OS	,184	,701	,251
<b>A family history of glaucoma</b>			
1. I/v injection in one eye			
OD/OS	,360	,234	,234
2. I/v injections in both eyes			
OD	,367	,727	,184
OS	,532	,585	,899
<b>Lens structure</b>			
1. I/v injection in one eye			
OD/OS	,139	,090	,148
2. I/v injections in both eyes			
OD	,460	,429	,974
OS	,493	,579	,238

# Conclusions

- Following intravenous administration of the anti-VEGF agent Bevacizumab, the patient IOP tends to increase rapidly and return to the base level within 30 minutes.
- The mean dynamics of IOP changes are similar in both AMD and DM patients.
- Factors such as the family history of glaucoma, the lens status and the number of previous injections do not affect the change in IOP at a statistically significant level.