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**The impact of topical anesthesia on the intraocular pressure**

**Raghda Faisal Mutwaly**  
Alneelain University, Sudan

**Aim:** The study aimed to evaluate the impact of topical anesthesia on intra ocular pressure by using eye drops.

**Material and methods:** The study was conducted in University Eye Hospital at Faculty of Optometry and Visual Sciences in period between march - June 2017.

The study included 120 subjects from both gender (47% males and 53% females ). their age ranged from (18 to 25) years.

Data was collected through special design data form, then processed using the statistical package for social sciences (SPSS version 20).

The examinations include measurement of vision, refractive error measurement, IOP measurement before and after 5 minutes, 15 minutes, 30 minutes, 60 minutes from eye drop instillation.

**Results:** The total number of subjects was divided into three groups each group include 40 subjects, the first group underwent Benoxil 0.4% eye drop, second group underwent Benox 0.4% eye drop, while the third group underwent artificial tears (tears natural) as control group.

The study revealed that topical anesthesia significantly decrease IOP, IOP decrease varies with type of topical anesthesia, A benoxil 0.4% eye drop more effect on IOP than benox 0.4% eye drop.

Using the benoxil 0.4% eye drop all periods were affected ranging from 5 minutes (-0.3 mmHg), 15 minutes (-0.9 mmHg), 30 minutes (-1.3 mmHg), 60 minutes (-1.6 mmHg).

When using benox 0.4% eye drop IOP is not affected in 5 minutes and at 15 minutes the IOP slightly affected (-0.1 mmHg) and at 30 minutes markedly affected (-1.0 mmHg) and at 60 minutes is also markedly affected (-1.4 mmHg).

While by using artificial tears (tears natural) the IOP is not affected in all periods.

The effect on IOP stable at the first 5 minutes and then decreases significantly after 60 minutes from instillation of anesthetic eye drop.

There are no statistically differences between the genders  $P > 0.005$ .

**Conclusion:** instillation of topical anesthetics eye drops causes a reduction in IOP.

**Biography**

Raghda Faisal is a student of optometry at Alneelain University, Sudan. She has published articles in several journals, international experience includes various programs, contributions and participation in different countries for diverse fields of Optometry. Her research interests reflect in her wide range of publications in various national and international journals

ragda83@life.com

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