UNWANTED SIDE EFFECTS OF TRAVOPROST

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Introduction: Glaucoma is a chronical progressive optical neuropathy with characteristic morphological changes on the desk of the optical nerve and retinal neurofibrillary layer as well as progressive death of ganglion cells with loss of sight in the absence of other eye diseases and congenital anomalies. It is called (EGC 2014) in the newest definition from the European association for Glaucoma. The basic medication for treatment of this illness are the prostaglandin derivatives from which the travoprost is the latest in a series of derivatives.
Goal: Discovering the unwanted side effects of Travoprost
Discussion: The latest estimates of WHO (World health organization) are the on a global level cancer takes the first position, the cardiovascular illnesses second and blindness takes the third position as global challenges that should be addressed. The Glaucoma impacts 9-12% of the people that have blindness in the world, i.e. 2,5 million people every year. WHO predicts that the percentage with rise to 30% by the year 2020. From this the need for daily findings of new medication for suppressing this illness occurs.
Conclusion: In the conclusion we can say that the right and on time diagnosis of the glaucoma and the effective treatment is the only mechanism in the fight with this illness.
Although there are side effects, the travoprost today is one of the basic agents in the fight with Glaucoma.
Key words: *Glaucoma, travoprost*

Introduction

After the discovery of travoprost as a prostaglandin agent and its powerful effect in reducing intra ocular pressure, it has become part of modern protocols for the treatment of glaucoma. [1] The travaprost is used individually as a mono therapy, but it also can be used in a combination especially with timolol maleate from the group of beta blockers. With the abovementioned combination, increases the effect for lowering the intraocular pressure up to 30% [2]. Besides the good features like every medication it has its unwanted side effects to which this paper is dedication on.

The unwanted side effects can be divided into several groups:

Very common (they occur to more than 1 out of 10 users) which include changing the color of the eyes with deposition of brown pigment in the iris.

Common (they occur to less than 1 out of 10 users) which include a burning, itching feeling, feeling of a foreign object in the eye and pain.

Less common (they occur to less than 1 out of 100 users) which include headache, redness in the eyes, conjunctivitis, blurred vision, blepharitis, pruritus

Other side effects- symptoms of an allergic reaction, psychiatric disorders, disorders of the nervous system, hearing impairment, cardiovascular disorders, respiratory disorders, disorders in the digestive tract, musculoskeletal, skin and other disorders [3,4.5,6 and 7]. For us the most important are the effects on the eyes like the change of the eyelashes and eyebrows in the sense of increased length, thickness, direction of growth and number of eyelashes. Swelling of the eyelids, macular edema, keratitis, diplopia, ptosis, cysts on the iris and retina ablation. [8.9.10]

Materials and methods.

For the needs of this study 96 patients where monitored of which 61 patient used the travoprost on two eyes and 35 patients in just one eye.
All of the patients use the travoprost as a mono therapy. From the monitored 96 patients 54 are men and 43 women.

Table 1

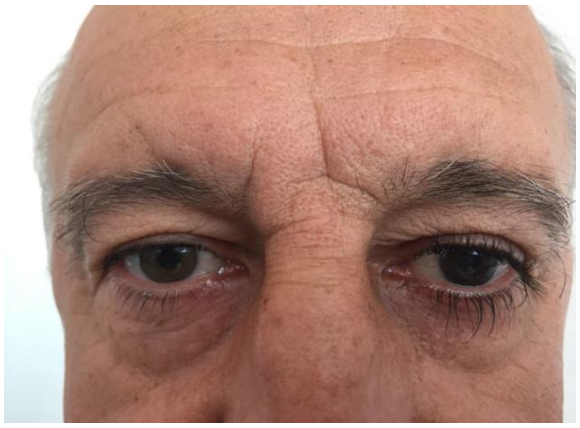
	Number of parients	In both eyes	In one eye
Men	54	33	21
Women	42	28	14
Total	96	61	35

The patients have been monitored for a period of one year and in that time period 4 examinations were made in every trimester separately. Notice, some of the patients were examined more often because of the condition of the illness, but those parameters are not taken in regard for this study. One symptom is monitored from every group,

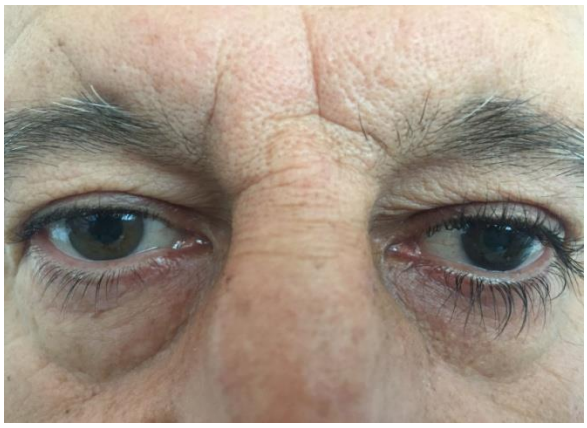
Deposition of pigment in the iris. Pain in the eye, redness in the eyes and enlargement of the eyelashes. All of the patients have glaucoma in an open angle and there are no other eye illnesses and diplopia under 2D in plus and minus. For every patient visual acuity measurement is taken, measuring the tone, gonioscopy, perimetry is regularly performed.

Table 2

	Patience with therapy in two eyes	Patience with therapy in one eye	Total
Deposition of pigment	7(11.47%)	4(11.42%)	11(11.46%)
Pain	5(8,12%)	2(5.72%)	7(7.22%)
Eye redness	5(8.12%)	2(5.71%)	7(7.22%)
Enlarged eyelashes	10(16.4%)	6(17,14%)	16(16,66%)



Picture 1



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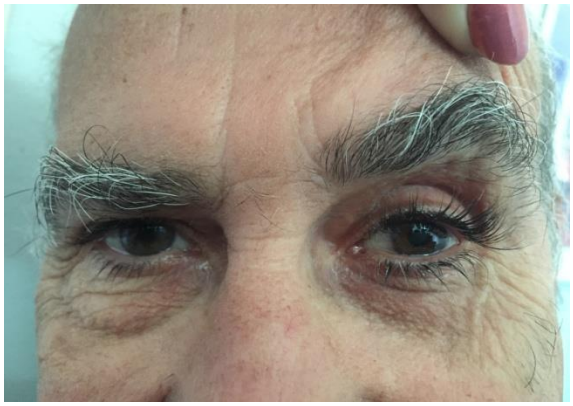

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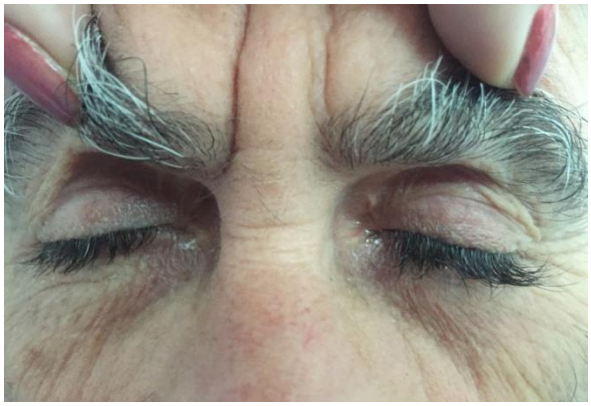

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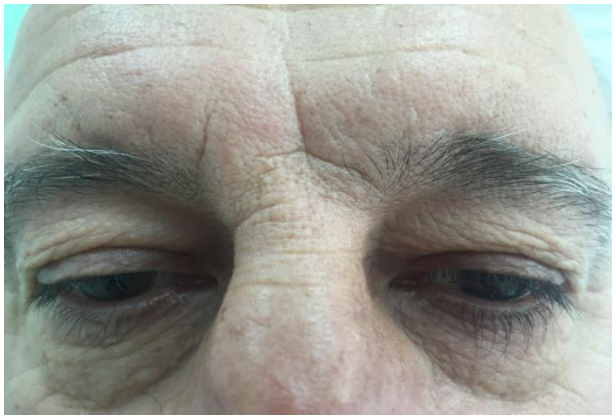

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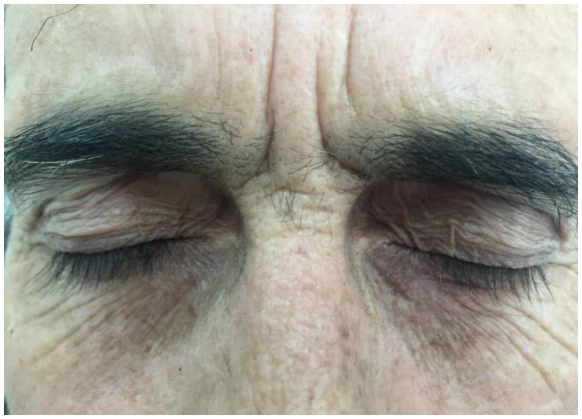

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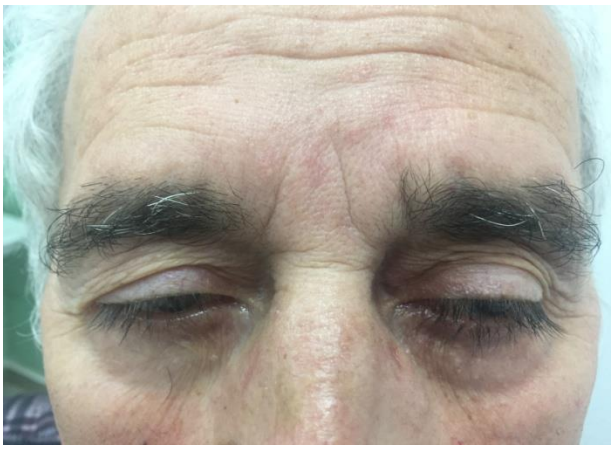

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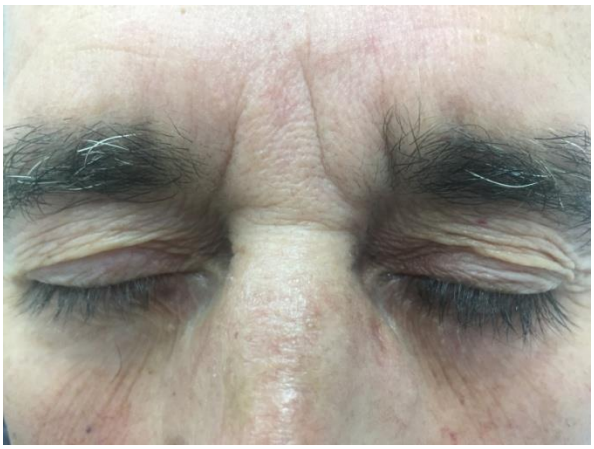

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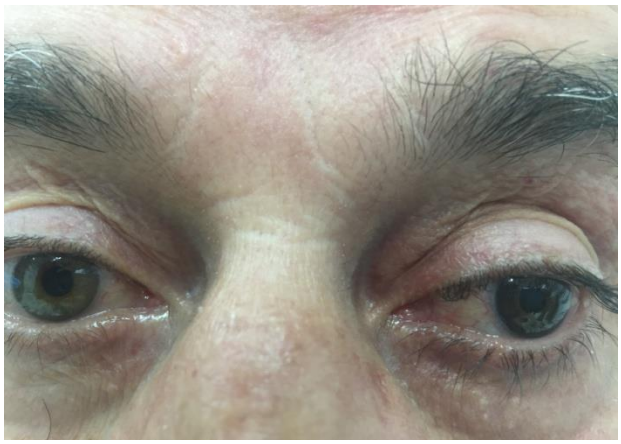

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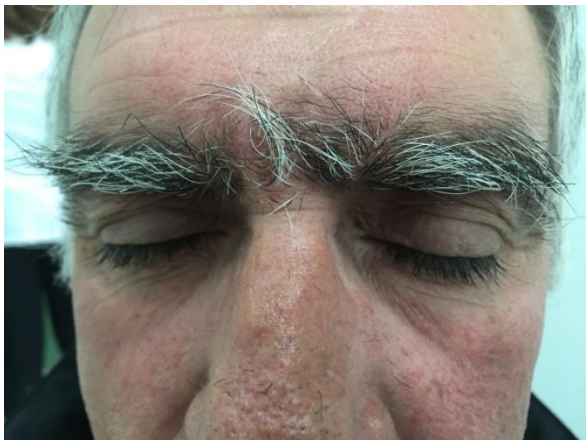

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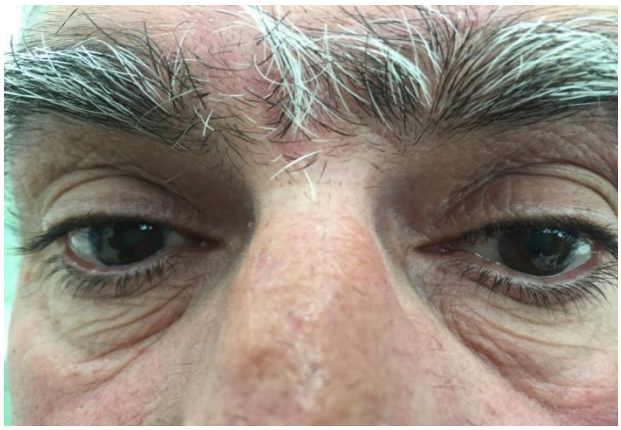

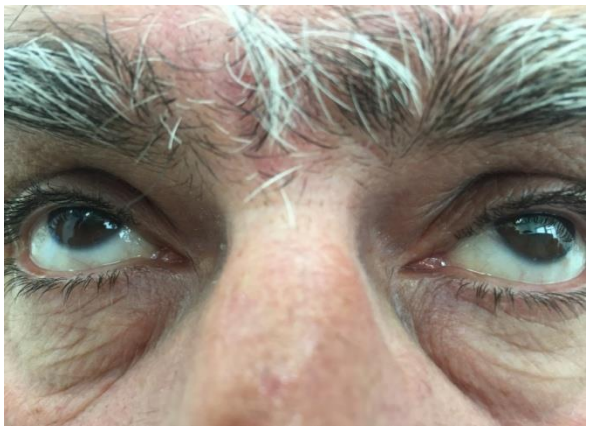

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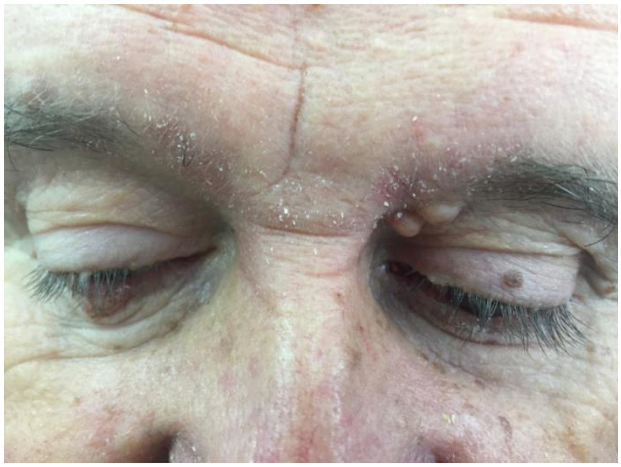


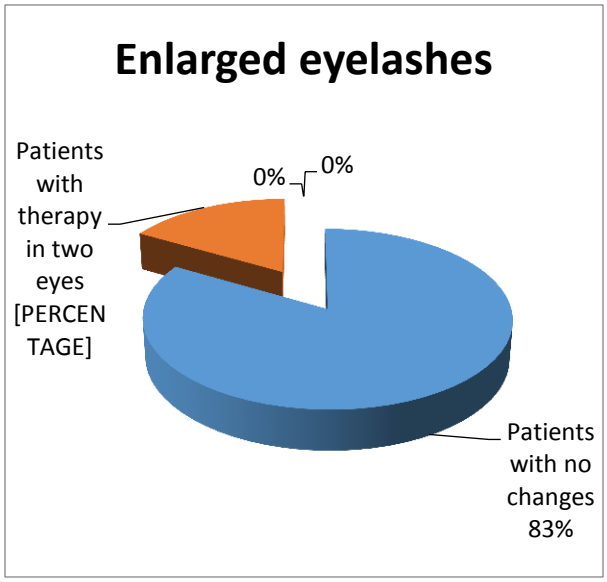
Picture 12

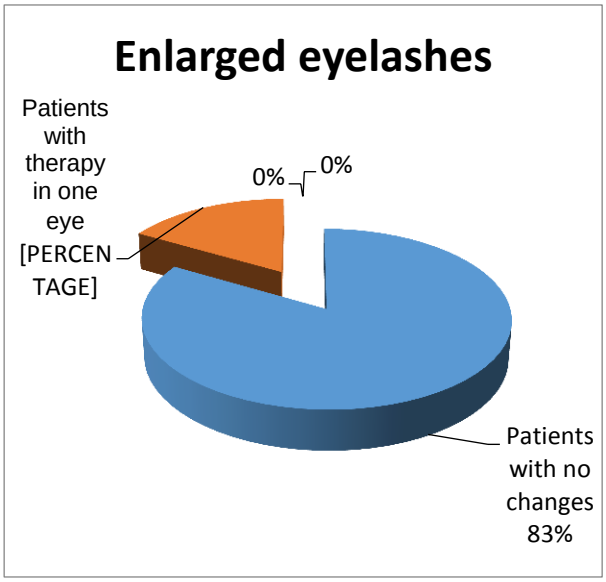
Picture 13

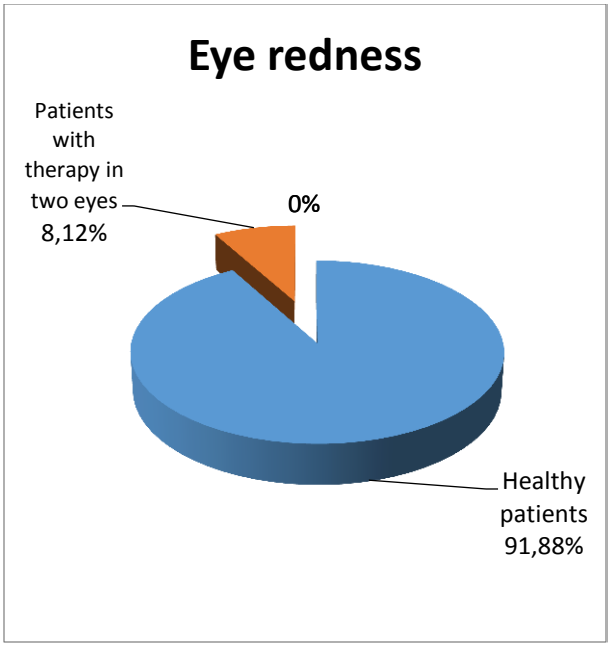
Picture 14

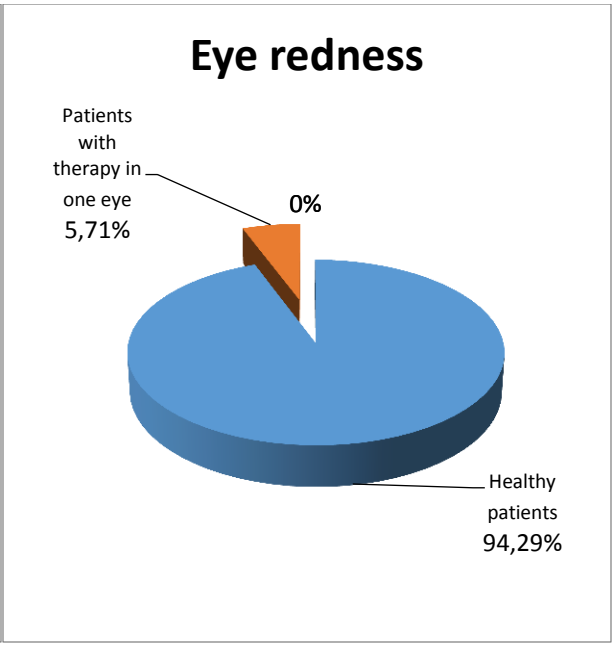
Results:

The received results were in the framework of our expectations. With the deposition of pigment, we can see that our total result is 11.11% which is a relatively small percentage. We received similar numbers during the examination regarding the pain which is 7%. I would like to use this opportunity to mention that none of the patients refused to use the therapy or tried to change it because of the pain.






Eye redness
Patients with therapy in two eyes 8,12%
0%
Healthy patients 91,88%


Eye redness
Patients with therapy in one eye 5,71%
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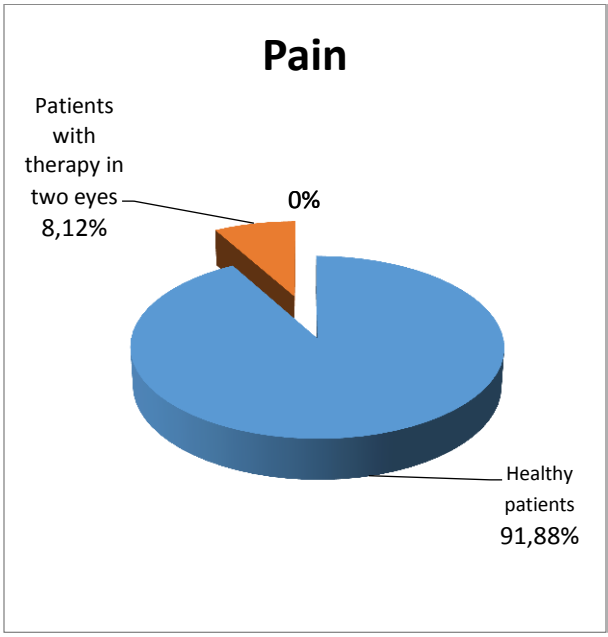
Healthy patients 94,29%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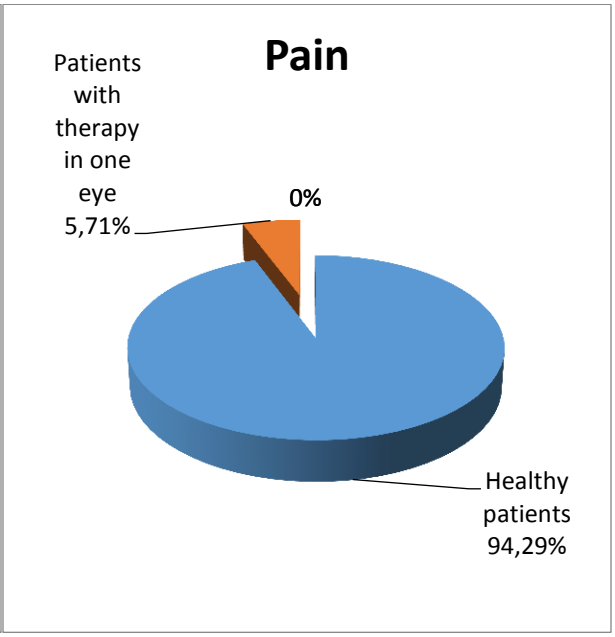
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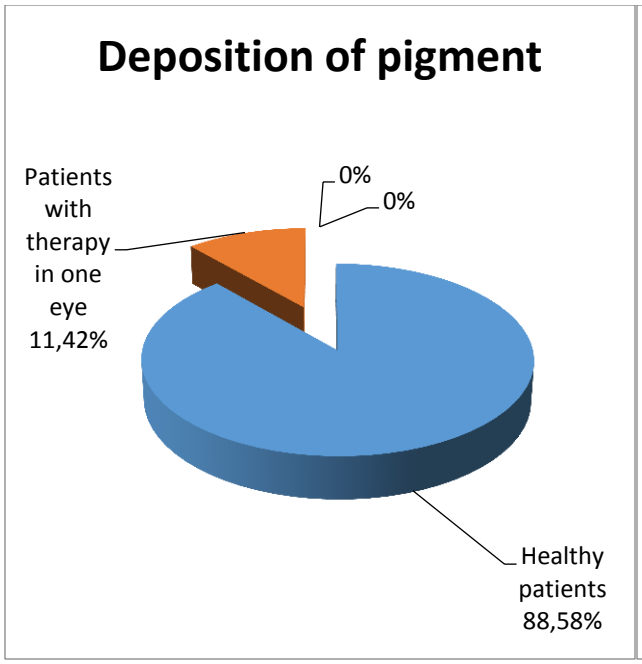
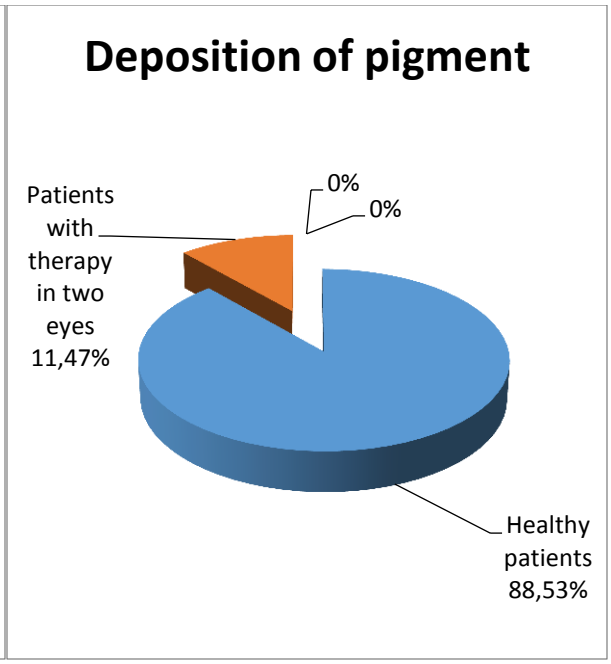
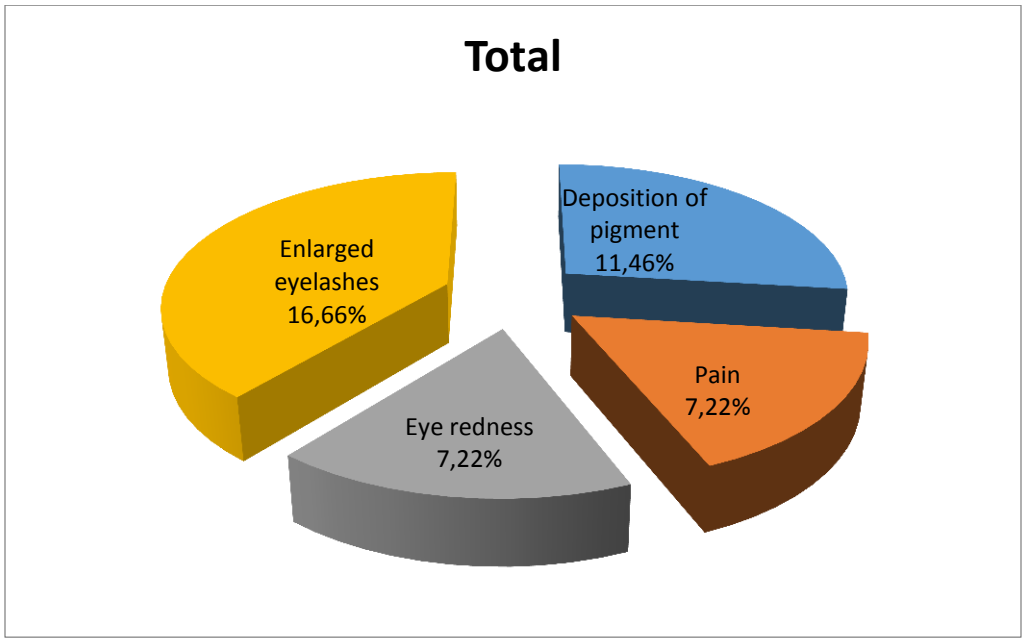
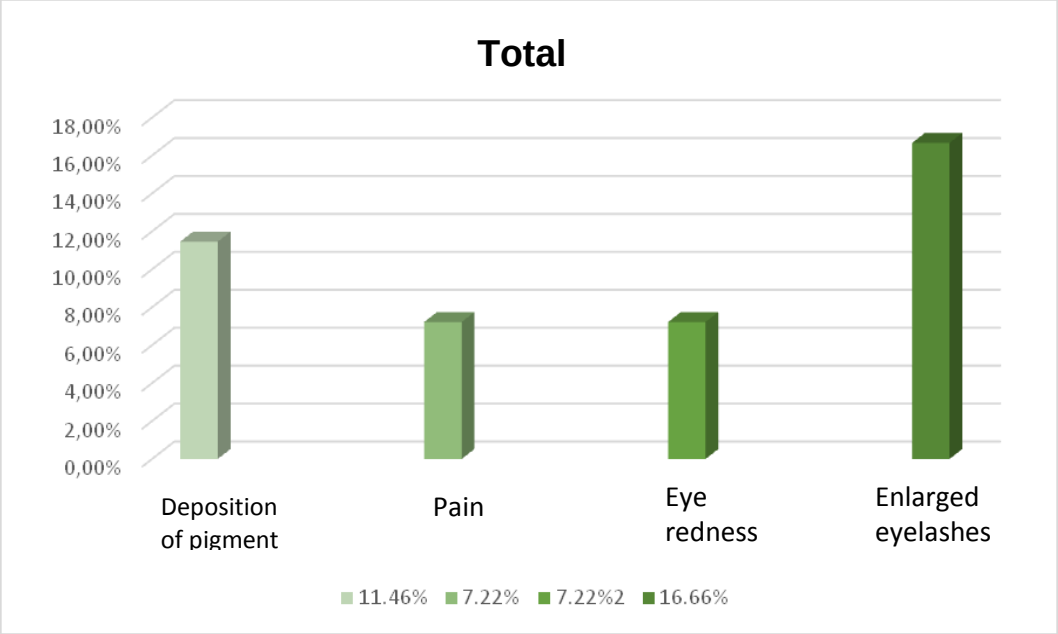




We received an identical result with the redness in the eyes as the pain and from this we can conclude that the pain and the redness in the eyes are directly proportional. The biggest percent of unwanted side effects are with the enlargement of the eyelashes. Up to 16.66% to such side effect there were no reactions from the patients, even some patients that were female were grateful.





Summary

In the summary we can freely say that the Travoprost is an agent accessible for the patients with a relatively small percentage of unwanted side effects that are easily manageable and are not the reason to stop the therapy, with a good positive effect for lowering the intra ocular pressure. Some female patients are even satisfied with the side effect on the eyelashes. The study confirms that the unwanted side effect differs very little between the patients that use this agent in one or both eyes.

Conclusion:

In the conclusion we can say that the right and on time diagnosis of the glaucoma and the efficient treatment is the only mechanism in the fight against this illness. Although there are side effects, the travoprost today is one of the basic agents in the fight with Glaucoma.

References

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