**Topical estrogen drops may be a new alternative in the treatment of glaucoma**

*Dear Editor,*

Intra-ocular pressure (IOP) is accepted as the most important risk factor for the development of glaucoma, and the primary aim of treatment is to reduce IOP. In the randomly performed clinical studies it was shown that the progression of glaucomatous visual field damage decreased, when IOP was lowered [1].

Estrogen, a steroid hormone, is very important factor for women and as a result of the decrease in the level of estrogen in postmenopausal period, women complain about high body temperature and sweating. In addition to these complaints, there are negative effects especially on cardiovascular system, bone and lipid metabolism in the postmenopausal period. Hormone replacement therapy (estrogen and/or progesterone) can be given to women in postmenopausal period in order to prevent some symptoms and diseases related to the estrogen deficiency [2].

It was reported in studies performed on women taken hormone replacement therapy, there were significant decreases in IOP and significant increases in tear break-up time and Schirmer test scores [2–6].

Knepper et al. applied topical progesterone on rabbits, and it was detected that topical progesterone increased IOP [7]. Similarly, Ofri et al. detected that topical progesterone increased IOP in lions [8]. These data indicate that the decrease of IOP as a result of the systemic hormone replacement therapy is due to the estrogen.

The first estrogen in the form of topical drop was applied by Sator et al. to the patients with keratoconjunctivitis sicca and they reported that the ocular symptoms were significantly improved and there was an increase in the Schirmer test scores compared to the control group, which used artificial tear [9]. When all these data are taken into consideration, we think that the topical estrogen drops may be used as an agent lowering the IOP in glaucoma treatment.

**References**


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