

18<sup>th</sup> International Conference on

# GLAUCOMA & RETINAL DISEASES

18<sup>th</sup> World Conference on

# OPTOMETRY AND PHOTO REFRACTIVE KERATECTOMY

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## Medical management of glaucoma with due consideration of systemic factors

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**Purpose:** Primary Open Angle Glaucoma (POAG) is a chronic progressive irreversible optic neuropathy with an increase in Intraocular Pressure (IOP), optic disc changes and visual field defects. Deciding target IOP & medical therapy is a key factor. IOP can be influenced by different systemic factors such as hypertension, atherosclerotic diseases, body mass index, and diabetes.

**Methodology:** Retrospective Analysis of our own studies (a) To assess effect of blood sugar level on IOP in Diabetic & non Diabetics (b) To assess effect of blood pressure on IOP (c) Effect of aerobic exercises on IOP and antiglaucoma drugs (d) Review of literature done to evaluate effects of various systemic factors on IOP.

**Findings:** There is a significant positive correlation between blood glucose variation and IOP among diabetics. Systemic antihypertensive drugs should be taken in the morning, however, there is no direct correlation between IOP & Hypertension. In Pregnancy, lactating mother's drugs such as Brimonidine, prostaglandin analogs, CAI should be avoided. Systemic/topical steroids are further risk factors for POAG. Thyroid disorder has a positive correlation with IOP. Statistically significant association between post-prandial BSL and IOP is present in diabetics with Pearson's coefficient at 0.3728 ( $p < 0.0001$ ). Aerobic physical exercise such as jogging, bicycling & yoga (except head down positions) decreases IOP. Coffee & Tobacco has an adverse effect on IOP.

**Conclusion:** Thus before starting medical therapy for POAG, it is extremely important to consider systemic factors such as lifestyle of the patient, Pregnancy, diseases like Diabetes, Hypertension, Thyroid disorder and drugs like Steroids, MAO inhibitors etc. Periodic systemic evaluation of the patient in terms of fluctuations in BSL, doses of steroids, thyroid status etc. is mandatory before planning effective antiglaucoma medication.

### Biography

Suvarna Kaustubh Gokhale is working as a Professor & Head Department of Ophthalmology, Smt. Kashibai Navale Medical College & General Hospital, Pune, India. She has a number of publications to her credit including in international journals. She has focused her work and research in the evaluation and treatment of glaucoma patients. Her interest lies in increasing public awareness about this avoidable cause of visual impairment. She has done research projects such as to study the effects of Blood pressure and effects of blood sugar variation on intraocular pressure. Her main interest lies in the understanding the effect of systemic factors such as pregnancy, thyroid disorders, etc. on intraocular pressure. She also has researched on other factors like aerobic exercise and Yoga and its effect on intraocular pressure.

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