

## ***Nanophthalmic eyes and its associated complications with refractive error correction using RGP contact lens- A case study***

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### ***Abstract***

Nanophthalmos is a rare genetic disease characterized by the abnormally small eyes secondary to compromised growth inducing high degree of hypermetropia and very often associated with primary angle closure glaucoma, uveal effusion, absence of foveal pit, shallow anterior chamber, diffuse macular thickening, rudimentary foveal avascular zone, scleral collagen fibers abnormalities etc. It may be present with familial or sporadic disorder with autosomal-dominant or recessive inheritance. Five genes and two loci have been implicated in familial forms. The five genes are MFRP, TMEM9, PRSS56, BEST1 and CRB1. The refractive error can be corrected by the spectacles and contact lens despite having their few limitations. However due to high power, optical aberrations associated with the use of spectacle is comparatively more than aberrations associated with the contact lens. In this case the total power of the optical system of eye is almost 73D in both eyes even if the power of crystalline lens is not considered when RGP is fitted.



### ***Biography:***

Milan Rai is an Intern Optometrist and he is working at Dr Om Prakash Eye Institute.

### ***Speaker Publications:***

1. NANOPHTHALMOS, Joao Breda, MD, Eduardo J. G. Duarte Silva PhD
2. Am J ophthalmol.1979 Sep;88(3 Pt 2):572-9. Angle-closure glaucoma in nanophthalmos. Kimbrough RL, Trempe CS, Brockhurst RJ, Simmons RJ.
3. J Curr Glaucoma Pract. 2016 Sep-Dec; 10(3): 113–117. Published online 2016 Oct 29. doi: [10.5005/jp-journals-10008-1211]. Spectrum of angle closure, uveal effusion syndrome, and nanophthalmos.
4. Clinical signs of hypoxia with high-dk soft lens extended wear: is the cornea convinced? Article in Eye & Contact Lens Science & Clinical Practice 29(1 Suppl):S22-5

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