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## With-the-rule astigmatism (WTRA) in congenital horizontal jerky nystagmus (CHJN): A prospective study

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Children with Congenital Nystagmus (CN) have a higher incidence of astigmatism when compared to matched controls (Capto 1997). This Astigmatism is generally with-the-rule (WTRA) with the greatest minus cylinder axis at 180° (±30°). Astigmatism is common in neonates and reduces to adult level through the process of emmetropization. This mechanism is interrupted in children with CN (Dickinson 1984). This study was undertaken prospectively using subjects with congenital nystagmus attending the Orthoptic Clinic at National Eye Hospital, Sri Lanka from Jan 2001 to May 2003. Few subjects were longitudinally followed up to 2013. Those with albinism or pathology causing sensory defect nystagmus and history of ocular surgery or contact lens wear were excluded. Full orthoptic assessments and refraction with or without cycloplegia were carried out on all subjects. Corneal topography was performed using Topcon KR 7100D auto kerato refractometer. Care was taken to take the readings between 9.30 and noon since there are well documented diurnal variations (Reynolds 1969). The experience of the first author ensured readings were taken while fixation was maintained on the internal target. 50 subjects were examined age ranging from 3-30 years. An incidence of 88.75% (WTRA) was observed with a range of -0.25 to -3.0 DC. The majority was moderate range of 2-3 DC (WTRA) suggesting morphological changes of the cornea. Our findings suggested the aetiology of the high prevalence of WTRA in CHJN is due to constant horizontal oscillation involving lateral and medial rectus causing flattening of the anterior surface of the cornea more in the 180° meridians.

## Biography

J U Seekkubadu is a Consultant Orthoptist. He is currently working as Senior Orthoptist at National Eye Hospital in Colombo, Sri Lanka. He serves for Orthoptics related to binocular science which benefits the patient having squints & ocular motor balances. He also provides Physiological counseling.

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