Pitfalls in optic nerve evaluation

Primary open-angle glaucoma is a progressive optic neuropathy involving loss of retinal ganglion cells and their axons at the level of the optic nerve head. This change manifests as thinning and excavation of the neural tissues and nerve fiber layer. The structural appearance of the optic nerve head is paramount to both glaucoma diagnosis and to the detection of progression. Hence, careful and systematic clinical examination of the optic nerve remains a cornerstone of glaucoma management. This presentation highlights various conditions which can co-exist and makes the diagnosis and assessment of glaucomatous optic disc difficult. There is a large degree of variability in the size of the normal optic nerve. Focal defects in neuro-retinal rim may be present and may indicate glaucoma, even in the presence of a “normal” cup to disc ratio. Myopic nerves are difficult to interpret, due to optic nerve tilt that makes evaluation of the temporal region, as well as the superior and inferior poles, difficult. Peripapillary atrophy can make determination of the optic disc margin difficult and can be misinterpreted as neuro-retinal rim. Congenital colobomas of the optic nerve head are easy to diagnose because of their typical appearance. Optic nerve pit and conus of the disc can sometimes cause diagnostic difficulties. Pallor disproportionate to cupping, normal intraocular pressure or unusual history of onset, progression and age should arouse suspicion of a neurological cause for the disc changes. Blurring of the disc margin can be due to papilledema, AION, papillitis or optic nerve head drusen.

Biography

Pratik Mahajan obtained MS in Ophthalmology and MBBS in Ophthalmology. He is a known Retina Surgeon with 11 years of experience working as a Chief Vitreoretinal Consultant and Surgeon at Shri Swaminarayan Gurukul Eye Institute, Rajkot. He pursued his long term Vitreoretinal Fellowship from the same institute at Rajkot, Gujarat. He underwent a clinical and research fellowship at Dr. Nagpal's Retina Foundation, Ahmedabad. Under the able guidance of Dr. PN Nagpal, he learned and mastered the skills of the Retinal Detachment surgeries. He completed a fellowship in Retinopathy of Prematurity at L V Prasad Eye Institute, Hyderabad and got wide exposure to pediatric vitreoretinal diseases and surgeries under Dr. Subhadra Jalali. He was honored Master’s in Surgery (MS) in Ophthalmology by the reputed Saurashtra University, Rajkot, and pursued the training at the recognised Pandit Dindayal Upadhayay Medical College, Rajkot. He did his MBBS from Mahatma Gandhi Memorial Medical College, Indore and pursued clinical internship from Maharaja Yashwantrao Hospital, Indore. Presently, he is associated with Retina Speciality Hospital. Earlier, he was at Vasan Eye Care Hospital Indore.

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