Gurkirat Singh Bajwa et al., J Clin Exp Ophthalmol 2017, 8:7(Suppl)
DOI: 10.4172/2155-9570-C1-075

Subfoveal choroidal thickness in amblyopia using SD OCT

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Purpose: To evaluate choroidal thickness in patients with unilateral amblyopia using spectral domain optical coherence tomography (SD-OCT).

Methods: In this prospective study 41 patients aged 5-40 years with unilateral amblyopia (anisometropia and strabismic) underwent evaluation using SD-OCT scanning for measuring choroidal thickness at Department of Ophthalmology outpatient department. The choroidal thickness was measured in subfoveal and at other locations 0.5 mm, 1 mm, 1.5 mm away from fovea in nasal and temporal quadrants in both amblyopic and normal eye of the same patient. In this study, we are correlating subfoveal choroidal thickness in amblyopic and normal fellow eye. Various other parameters like age, sex, axial length, k-reading, orthoptic evaluation and refractive errors were recorded. T- test was used to compare measurement between ambyopic and normal fellow eye in patients with amblyopia.

Results: Mean age of patients was 21.85±11.17 years. The subfoveal choroidal thickness at fovea was greater in cases of amblyopic eye as compared to normal fellow eye. Subfoveal choroidal thickness in amblyopic eye was found to be 335±61.54 μm whereas in normal fellow eye 313.90±48.01μm. The subfoveal choroidal thickness in amblyopic group(p=0.043) is greater as compared to normal fellow eye. In case of strabismic amblyopia (p=0.056), subfoveal choroidal thickness is not significantly greater. In anisometropic amblyopia, (p=0.042), subfoveal choroidal thickness is significantly greater as compared to normal fellow eye.

Conclusion: In subfoveal area, the choroid was thicker in amblyopic eye than in the normal fellow eyes. A thicker choroid is related to amblyopia, and this may be a useful diagnostic parameter for amblyopia irrespective of age especially in orthophoric eyes.

Recent Publications

1. G S Bajwa, P K S Sodhi and Brijesh Takkar (2016) Multiple intraretinal cilia following spring coil injury International ophthalmology. 37(3):467-468. Doi:10.1007/s10792-016-0313-5.
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Biography

Gurkirat Singh Bajwa has vast experience of anterior segment, posterior segment and paediatric cases. He is into PG & UG teaching for the last 30+ yrs. in Medical Colleges and is presently HOD Eye Department. He is looking after the VR unit which was upgraded by him in 1995. Other than PHC Subtenons injections, ROP Management and Pulse Therapy in Uveitis. He performs almost all type of surgeries such as PKP. Refractive ,phaco, P.P.Vitrectomy ,Sclera Buckling, Pneumoretinopexy, Pediatric Cataract and Simple Squint. His publications include congenital cystic eyes, Seta in eye, Sarcoidosis in North India, Diabetic retinopathy & IOFB removal .He also is into community service by conducting camps for the needy and even surgery is conducted for Cataract and Glaucoma. He has served as executive member and president of state and zona ophthalmological societies.

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