

Ocular Ultrasonography in the Diagnosis of Diseases of the Posterior Segment of the Eye

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Background

Ocular ultrasonography imaging is a diagnostic technique to analyse the intra-ocular structures especially in opaque media like cataract and vitreous haemorrhage. It is useful in cases of injury to the eyeball, posterior segment diseases of vitreous, retina, choroid, optic nerve, retro-bulbar spaces and orbits in addition to calculation of intra-ocular lens power.

Aims & Objectives

To study Ocular ultrasonography in the diagnosis of diseases of the posterior segment of the eye.

Material & Methods

This prospective study was conducted among patients attending ophthalmic Out-Patient Department of RMMCH, Chidambaram, T.N. The study was performed for a period of four months from January to April 2013. All patients planned to undergo cataract surgery were routinely subjected to both A and B scans ultrasonography to estimate IOL power and to exclude posterior segment pathology, respectively. The results were stored and documented. All patients with other causes

of media opacities were screened for posterior segment diseases.

Results

1. Exact IOL power was calculated prior to cataract surgery for all patients.
2. Among the persons subjected to ultrasound, 30 patients were found to have posterior segment diseases including retinal detachment, vitreous haemorrhage, posterior vitreous detachment, posterior staphyloma and vitreous opacities.
3. A case of ultrasonography revealed a case of retinoblastoma, a childhood tumour.
4. Post-operative ultrasonography revealed endophthalmitis, dropped nucleus into vitreous in a couple of patients.

Conclusions

Thus ultrasonography serves as an effective method to diagnose ophthalmic diseases especially those of the posterior segment in opaque media like cataract and vitreous haemorrhage. It is faster, accurate and reliable with added advantages of being non-invasive, patient-friendly and less expensive technique.