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- Academic Background
  1. Taichung Medical College, Medical School, 1983-1988
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Posterior Segment OCT Imaging – Retina

In the 1990s, Time-domain OCT could make 400 A-scans per second with axial resolution of 8–10 μm. In 2006, Spectral-domain OCT (SD-OCT) could detect the light echoes simultaneously by measuring the interference spectrum with an interferometer with a high-speed spectrometer. 20,000–52,000 A-scans per second could be made with axial resolution of 5–7 μm. Accurate registration of optical coherence tomography scans is essential to optimize center subfield thickness accuracy. Improvements in spectral-domain optical coherence tomography imaging technology allow the routine imaging of the choroid and deep optic nerve structures. Even infant choroid can be imaged with a portable spectral-domain optical coherence tomography system. Reproducible measurements of choroidal thickness are possible. Several variables such as age, axial length and time of day may affect choroidal thickness. Choroidal thickness may be applied in the diagnosis of central serous chorioretinopathy, polypoidal choroidal vasculopathy and exudative age-related macular degeneration. As with any new technology, it needs validation in both healthy and diseased eyes. Under routine examination conditions, subfoveal choroidal thickness measurements by enhanced depth imaging-optical coherence tomography showed a high intra-observer reproducibility and interobserver reproducibility.