# SUMMARY

OCT is a non-invasive optical imaging technique. It uses the property of optical reflectivity to give a cross-sectional imaging of biological tissue with a high resolution and micrometer scale

AS-OCT can detect quantitatively subtle changes to the eye caused during the early stages of ocular disease, such as glaucoma, and by procedures like cataract surgery. It can measure residual stromal thickness in LASIK patients who are candidates for re-treatment. This capability has made OCT an attractive imaging and measurement technique to aid photorefractive surgery for the correction of myopia, hyperopia and astigmatism. It is used to investigate and monitor post-operative side-effects.

Ultrasound biomicroscopy (UBM) is a new imaging technique that uses high frequency ultrasound between 40 and 100 MHZ that is possible to resolve structures up to 50 microns in size.

There are many applications regarding this imaging(UBM) method including imaging the details of the angle, ciliary body, zonules and posterior chamber, So it is helpful in understanding the different types of glaucoma.

In eyes with primary angle closure ( PAC), cataract surgery opened the angle concomitant with attenuation of the anterior positioning of the ciliary

processes. Cataract surgery would contribute to postoperative widening of the angle not only by completely removing lens volume and pupillary block, but also by attenuating anterior positioning of the ciliary processes in eyes with PAC.

Moreover, compared with laser iridotomy, lens extraction has a more potent effect on deepening of the AC and widening of the angle in eyes with a narrow angle.

Optical coherence tomography was similar to UBM in quantitative AC angle measurement and detection of narrow angles. In addition, it was easier to use and did not require contact with the eye. Optical coherence tomography is a promising method for screening individuals at risk for narrow angle glaucoma.