Revisiting the vascular theory of glaucoma using optical coherence tomography angiography

Harsha Rao

1. OCTA can detect vessel density changes occurring within the optic nerve head, peripapillary and macular regions in eyes with glaucoma (This thesis)

2. Traditional structural measurements, namely, neuroretinal rim area, retinal nerve fiber layer thickness and ganglion cell complex thickness are superior to OCTA vessel density measurements in differentiating glaucomatous eyes from control eyes (This thesis)

3. OCTA vessel densities are affected by systemic diseases like diabetes and hypertension (This thesis)

4. Vessel densities in scans with greater signal strength are higher compared to scans with lower signal strength (This thesis)

5. Despite extended knowledge of glaucoma, it is still largely undetected in the community

6. There is a huge unmet need in the field of glaucoma right from the understanding of the pathogenesis of glaucoma to its screening, diagnosis, management and follow-up

7. Optical coherence tomography has revolutionised the way glaucoma is detected and managed

8. Integrating the OCT angiographic measurements with the traditional OCT measurements is likely to enhance the ability to accurately diagnose glaucoma and its progression early

9. You can’t cross the sea merely by standing and staring at the water (Rabindranath Tagore)