



Consider sources of bias when using OCT angiography

The Science behind the Tip

OCT angiography (OCTA) has gained great interest in glaucoma diagnosis^{1,2} and follow up³. However, several conditions and diseases can impact its results and should be considered, especially when performing longitudinal analyses⁴.

The following systemic diseases have been identified as potential sources of bias (even when no visible fundus changes exist): arterial hypertension, Diabetes Mellitus, coronary artery disease, carotid artery stenosis, chronic kidney disease (as well as being under haemodialysis), obstructive sleep apnea syndrome, and several neurodegenerative diseases, such as Alzheimer's Disease, multiple sclerosis and Parkinson's Disease⁵. Overall, these diseases led to reduced vessel density (VD) and an increased foveal avascular zone (FAZ) area and perimeter. Other conditions, such as performing regular high-intensity interval exercise (VD decrease) or being pregnant (VD increase) can also impact the results. Many of the published studies on this topic did not perform adjustment for relevant confounders and this should be improved in future studies.

References

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