

Swept Source OCT-A in Exudative Age-related Macular Degeneration

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Purpose

Optical coherence tomography angiography (OCTA) is a new form of retinal imaging that has the potential to provide high resolution maps of the retinal and choroidal vasculature in a non-invasive manner. Swept source imaging has the potential to allow faster image acquisition speeds and improved depth penetration. In this presentation, we will provide an overview of the experience of Moorfields Eye Hospital using swept source OCTA in the diagnosis and management of exudative age-related macular degeneration (AMD).

Methods

We will present a series of cases of exudative AMD imaged with swept source OCTA, and in each case, highlight practical lessons and new insights that can be derived. We will describe areas where swept source OCTA is particularly effective, but also areas where its use can be challenging.

Results

Swept source OCTA has the potential to provide beautiful images of the choroidal neovascularization in AMD and other disorders. It is particularly effective for monitoring of patients with early AMD and in those patients where conventional fluorescein angiography would be difficult to interpret e.g. AMD with vitelliform lesions and drusenoid pigment epithelium detachments. In many cases, swept source OCTA also reveals additional complexities about disease process and image interpretation.

Conclusions

Swept source OCTA is an exciting technology, still in its early stages of application. Much remains to be learned about its use, however, it is likely to transform the management of exudative AMD in the coming years.

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Dr Keane has received speaker fees for Topcon, Heidelberg, Haag-Streit, Allergan, Novartis, and Bayer. He is an external consultant for DeepMind and Optos. He has served on advisory boards for Novartis and Bayer.