Review of: "Impact of signal strength on quantitative retinal and choriocapillaris flow measurement from optical coherence tomography angiography"

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OCTA is one of the most commonly used examination in the field of fundus diseases. It can accurately reflect the blood flow status of the retina and choroid, and provide the most direct basis for the diagnosis and treatment of diseases. Currently, two types of devices are mainly used in clinical practice: spectral-domain OCT and swept-source OCT. In different hospital, there is respective application between different diagnosis and treatment orgnization. However, the content that both check is comparable? Are there any differences? In this article, researchers have done a detailed and in-depth discussion. In this paper, the ocTA performance of the two devices is compared by setting standard signal attenuation. Through examination, it was found that the performance of the two devices in retinal surface capillaries, deep capillaries and choroidal capillaries was basically changed along with the weakening of the signal, and the blood flow signal also showed a significant decrease. However, the performance between the two devices is not completely consistent, which is mainly due to the different detection technology (such as scanning speed, scanning depth and range) and calculation methods used by the two inspection Settings. SS OCT seems to reflect and record the changes of blood flow signals in the corresponding parts more accurately, but it has good consistency with SD OCT on the whole.Although this is a discussion under standard conditions, there are some differences with the actual clinical working environment, such as uneven crystals, cloudy vitreous lesions and even uneven changes in the tear film on the ocular surface, etc. and these factors will cause signal attenuation, which is not uniform and consistent as set in the experiment. However, in this paper, the standard method is used to observe that signal attenuation can cause changes in OCTA blood flow signal, and it has a significant impact. This conclusion provides a valuable reference for clinical work.