Displaying the Choroid with Depth-Enhanced Optical Imaging OCT

The principle of OCT requires penetration of the emitted beam through the structures observed before being received for analysis. Thus, with the standard technique, images of the full-thickness retina to the RPE, Bruch's membrane and choroid immediately adjacent space can be obtained, but the remainder of the choroid is beyond the capabilities of the instrument. To study this layer, Spaide developed a system consisting of an approximating scanner to the eye for multiple inverted images that then are processed to obtain a higher quality image in which the choroid can be seen in greater depth. Several diseases have been studied using this technique. This technique may be relevant for studying wet AMD associated with RPE detachment and especially in occult CNV, which often cannot be visualized with conventional OCT. [40,41,73-76]

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