

AB036. Pulsatile choroidal blood flow (PCBF) in the glaucoma spectrum—preliminary results obtained with a novel optical method

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Background: Decrease of ocular blood flow has been linked to the pathogenesis of ocular diseases such as glaucoma and age-related macular degeneration. Current methods that measure the pulsatile blood flow have major limitations, including the assumption that ocular rigidity is the same in all eyes. Our group has recently developed a new method to measure the pulsatile choroidal volume change by direct visualization of the choroid with OCT imaging and automated segmentation. Our goal in this study is to describe the distribution of PCBF in a healthy Caucasian population.

Methods: Fifty-one subjects were recruited from the Maisonneuve-Rosemont Hospital Ophthalmology Clinic and underwent PCBF measurement in one eye. The distribution of PCBF in healthy eyes was assessed.

Results: The distribution of PCBF among the healthy eyes was found to be $3.94 \pm 1.70 \mu\text{L}$ with this technique.

Conclusions: This study demonstrates the normal range of PCBF values obtained in a healthy Caucasian population. This technique could be used for further investigation of choroid pulsatility and to study glaucoma pathophysiology.

Keywords: Pulsatile choroid blood flow (PCBF); glaucoma; pathophysiology; novel method

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