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# Serial choriocapillaris flow changes in eyes with branched retinal vascular obstruction

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**Purpose**: To evaluate the Chorio Capillaris (CC) flow changes in Branched Retinal Vascular Obstruction (BRVO) on Optical Coherence Tomography Angiography (OCTA).

**Methods**: Retrospective analysis of 29 patients with unilateral BRVO (58 eyes, including unaffected fellow eyes for controls). 4.5 x 4.5 mm macular scans were divided into 4 quadrants. Serial analyses were conducted on CC flow voids of the opposite quadrant to the active occluded area in BRVO eyes. Each of the quadrants was also compared to the occluded quadrant of resolved eyes and the contralateral quadrant of fellow eyes by matched data analysis. A regression analysis was performed on the several parameters (Choroidal Thickness; CT, Choroidal Vascularity Index; CVI, Central Macular Thickness; CMT, The number of intravitreal injections) and CC flow voids.

**Results**: The CC flow void increased sequentially: The uninvolved quadrant of acute BRVO-affected eyes, that of resolved eyes after 3-month/1-year, the contralateral quadrant of fellow eye, and the involved (occluded) quadrant of resolved eyes. There were significant correlations between initial CMT, the number of injections and the CC flow void of uninvolved quadrants (P=0.025, 0.031 respectively), and between the involved (occluded) quadrants and fellow CT (P=0.029).

**Conclusion**: CC flow void of uninvolved macular areas decreased significantly in eyes with acute BRVO, suggesting that CC changes were limited to the blocked area and a compensatory mechanism would work in surrounding areas.

## Biography

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