

OPTICAL COHERENCE TOMOGRAPHY ANGIOGRAPHY OF CHOROIDAL NEOVASCULARIZATIONS IN CHOROIDAL TUMORS

Luisa Pierro MD, Alessandro Marchese MD, Giuseppe Casalino MD

Department of Ophthalmology, University Vita-Salute, IRCCS San Raffaele, Milan, Italy

Purpose

To describe optical coherence tomography angiography (OCT-A) features of choroidal tumors complicated by choroidal neovascularization (CNV).

Methods

Retrospective cross sectional study of patients with choroidal osteoma, choroidal nevus and choroidal melanocytoma complicated by CNV or polypoidal choroidal vasculopathy (PCV). All patients included in this study were consecutively seen at the Imaging Unit of San Raffaele Hospital between January 2016 and January 2017. All patients underwent a comprehensive ophthalmological evaluation and multimodal imaging analysis, including swept-source (SS) OCT-A (DRI OCT Triton, Topcon, Inc., Tokyo, Japan).

Results

9 eyes of 8 consecutive patients (4 female/4 males) were included in the analysis. CNVs were identified in 7 eyes (3 eyes with choroidal osteoma, 3 eyes with choroidal nevus and 1 eye with melanocytoma) and PCV in 2 eyes associated with choroidal nevus. OCT-A showed vessels ramifications corresponding to an actively leaking new vessels in fluorescein and indocyanin angiography. Actively leaking CNV developed in 2 eyes with choroidal osteoma in areas of focal choroidal excavation associated with decalcification of the tumor.

Conclusions

OCT-A showed to be a valuable tool for detection of CNV and PCV complicating choroidal tumors. FCE may be found in eyes with choroidal osteoma and CNV on OCT. Decalcification of choroidal osteoma may represent a common pathogenic pathway for development of FCE and CNV in choroidal osteoma.

Acknowledgements: There are no conflicts of interest related to present study.