

OCTA Evidence of Myopic Choroidal Neovascularization Complete Regression after Anti-VEGF Intravitreal Injection

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Received: March 25, 2021; **Published:** April 30, 2021

Keywords: OCTA; Myopic CNV; Ranibizumab; Anti-VEGF

We report an optical coherence tomography angiography (OCTA) pre and post one injection of ranibizumab in a naive 77 years old man with myopia complicated by choroidal neovascularization.

Myopic choroidal neovascularization (CNV) is a common complication which often leads to a sudden onset progressive deterioration in central vision and is associated with a poor prognosis unless treated [1]. The introduction of intravitreal anti-vascular endothelial growth factor (VEGF) therapies for myopic CNV has had an important impact on the management of these condition [2].

We present a photo essay of an optical coherence tomography angiography (OCTA) in a naive 77 years old man with myopia complicated by bilateral CNV. The patient received three ranibizumab intravitreal injections in the right eye (OD), during a follow-up OCT carried out mainly for OD an interruption of the epithelial pigmented epithelium (EPR) was noted in the left eye (OS), no symptoms in this eye were reported by the patient, an OCTA was carried out.

Left eye (OS) OCTA with Heidelberg Spectralis (Heidelberg Engineering, Heidelberg, Germany) automatically segmented with built-in software shows in a glomerular neovascularization in the avascular complex (Figure 1A). OCT showed an hyperreflective lesion with shallow subretinal hypo-reflective fluid suggestive of active type 2 CNV (Figure 1B). Therefore, an intravitreal injection of ranibizumab was carried out in OS. Follow-up 1 month after, resulted in a complete regression of the neovascularization in OCTA in the same point identified by built-in follow up function (Figure 1C). OCT scan showed resolution of the EPR interruption and restoration of normal anatomy (Figure 1D). Pre-injection best corrected visual acuity (BCVA) was 20/25 Snellen at 1-month follow up increased to 20/20 Snellen. As previously demonstrated, OCTA is a valuable tool for diagnosis and follow-up of myopic CNV [3], we suggest the importance of this technology for screening purposes in fellow eyes.

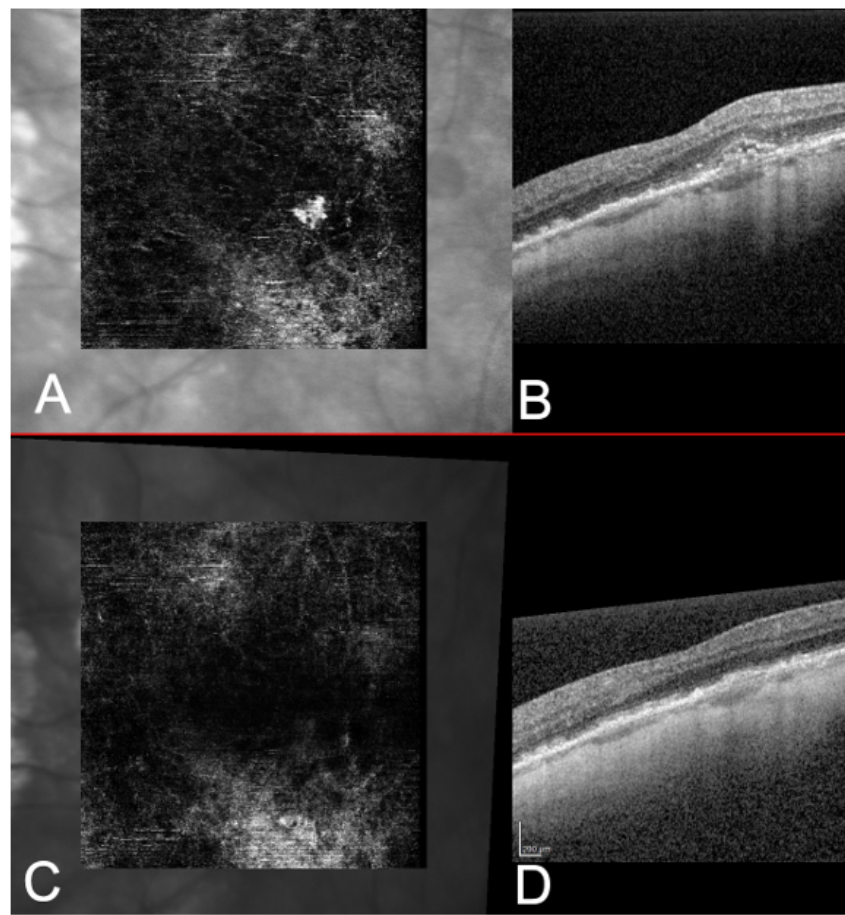


Figure 1: 1A: Pre-treatment en-face optical coherence tomography angiography (OCTA) section (3×3 mm) in the avascular complex shows a glomerular type 2 neovascular network with a well-circumscribed appearance. 1B: Pre-treatment OCT b-scan shows an hyperreflective lesion with subretinal hyporeflective fluid suggestive of active type 2 CNV. 1C: 1 month post-treatment en-face optical coherence tomography angiography (OCTA) section (3×3 mm) in the avascular complex shows complete CNV regression. 1D: 1 month post-treatment OCT b-scan shows continuity of retinal layers and absence of subretinal fluid.

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Volume 12 Issue 5 May 2021

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