

Dilemmas in treating drusenoid pigment epithelial detachment inactive on optical coherence tomography

Dilemas no tratamento do desprendimento epitelial do pigmento drusenóide inativo na tomografia de coerência óptica

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Dear Editor,

I read with interest the case reports of symptomatic (visual decline) drusenoid pigment epithelial detachments (DPEDs) presented by Borges et al.⁽¹⁾. Both patients had undergone cataract surgery and had no intraretinal or subretinal fluid on optical coherence tomography (OCT). However, they both had angiographic evidence of choroidal neovascular membrane (CNVM) in indocyanine green (ICG) or fundus fluorescein angiogram (FFA). The visual acuity, angiography, and OCT improved with repeated intravitreal anti-vascular endothelial growth factor agent (anti-VEGF agents, ranibizumab) injections. There are a few dilemmas to discuss.

1. Typically, DPED per se is not known to cause visual decline, though it might induce hyperopic refractive error. In the absence of intraretinal or subretinal fluid in OCT, what reversible anatomical changes do the authors propose to be the cause of vision loss in these patients?

2. As per the current understanding, DPED ($\geq 350 \mu\text{m}$) is considered to be a variant of high-risk non-exudative age-related macular degeneration associated with large confluent soft drusen and no treatment is needed for such lesions⁽²⁾. Though the presence of subretinal fluid should arouse the suspicion of an underlying CNVM, benign subretinal fluid without

the presence of demonstrable CNVM may occur, presumably due to a mechanical effect, or acquired vitelliform lesions may develop⁽²⁾. It has also been noted that heterogeneous reflectivity or increasing hyporeflectivity of the DPED content may suggest CNVM compared to homogeneously hyperreflective material^(2,3). ICG angiogram plays a major role in ruling out CNVM in such cases in addition to FFA.

3. Treatment of symptomatic DPED has been reported before in the peer-reviewed literature with intravitreal anti-vascular endothelial growth factor (VEGF) agents. A 65-year-old female with DPED has been reported to benefit from 3 intravitreal bevacizumab injections⁽⁴⁾. This lady had an extrafoveal occult CNVM on FFA. The visual acuity improved from 6/18 to 6/9 in this eye and the DPED/soft drusen also decreased⁽⁴⁾. The provided OCT (time-domain) image at presentation does not seem to reveal obvious subretinal or intraretinal fluid⁽⁴⁾. In another study, the authors treated 6 symptomatic (blurred vision and metamorphopsia) DPED cases without evidence of CNVM with intravitreal ranibizumab⁽⁵⁾. All patients reported improvement of metamorphopsia and 5 patients gained at least one Early Treatment of Diabetic Retinopathy Study (ETDRS) letter. The presence of intraretinal fluid at presentation was associated with good visual gain⁽⁵⁾. In conclusion, the authors should be congratulated for reporting these 2 unusual cases of symptomatic DPED with no activity on OCT, and for emphasizing the utility of ICG angiogram in such cases.

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REFERENCES

1. Borges FP, Siqueira RC, Scott IU, Cardillo JA, Jorge R. Choroidal neovascularization silent on optical coherence tomography: report

- of two cases. *Arq Bras Oftalmol* [Internet]. 2017 [cited 2017 Nov 6]; 80(4):263-5.
2. Mrejen S, Sarraf D, MukkamalaSK, Freund KB. Multimodal imaging of pigment epithelial detachment: a guide to evaluation. *Retina*. 2013;33(9):1735-62.
 3. Roquet W. Clinical features of drusenoid pigment epithelial detachment in age related macular degeneration. *Br J Ophthalmol*. 2004;88(5):638-42.
 4. Krishnan R, Lochhead J. Regression of soft drusen and drusenoid pigment epithelial detachment following intravitreal anti-vascular endothelial growth factor therapy. *Can J Ophthalmol*. 2010;45(1):83-4.
 5. Gallego-Pinazo R, Marina A, Suelves-CogollosN, Francés-Muñoz E, Millán JM, Arevalo JF, et al. Intravitreal ranibizumab for symptomatic drusenoid pigment epithelial detachment without choroidal neovascularization in age-related macular degeneration. *Clin Ophthalmol*. 2011;5:161-5.