

RETINA MÉDICA

14:50 | 16:30 - Sala Neptuno

Mesa: Marinho Santos, Maria Luz Cachulo, José Roque

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POLIPOIDAL CHOROIDAL VASCULOPATHY – IS INDOCIANINE-GREEN ANGIOGRAPHY ESSENTIAL FOR DIAGNOSIS?Inês Laíns¹, João Figueira², Cláudia Farinha¹, Maria da Luz Cachulo², Miguel Ângelo Costa³, Ana Rita Santos³, Pedro Melo³, Rufino Silva²

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³Association for Innovation and Biomedical Research on Light and Image)**Introduction**

Polypoidal choroidal vasculopathy (PCV) is a subtype of neovascular age-related macular degeneration with a specific course and treatment¹. It is characterized by an inner choroidal vascular network of vessels with terminating polypoidal structures², so indocyanine green angiography (ICGA) is considered essential to diagnosis. Recent studies identified PCV characteristic optical coherence tomography (OCT) features^{3,4}, however none of them tried to perform the diagnosis without concomitant ICGA.

Purposes

The aim of this study was to determine whether three Ophthalmologists could identify PCV eyes and establish its diagnosis without ICGA images.

Methods

Local database was assessed by one of the authors, who identified consecutive patients with newly diagnosed PCV or occult choroidal neovascularization (CNV). All medical records were then reviewed and only patients without previous ocular treatments which had baseline color fundus photography, OCT, fluorescein angiography (AF) and ICGA were included. PCV diagnosis was assumed when PCV lesions were identifiable on ICGA. Baseline images were collected and organized by patient, blinding any identifying features. Thereafter, all but ICGA were provided to three other Ophthalmologists. Images' evaluation was performed independently by each one, according to a standardized database.

Results

One-hundred eyes were included, 53 occult CNV and 47 PCV. 29% had available *Spectralis HRA+OCT*, the remaining *Cirrus HD-OCT*. Considering diagnosis by graders when at least 2 of them agreed, 32 of the 47 PCV were identified, representing a sensitivity of 68.09% and a specificity of 56.60%. Regarding individual results, sensitivity ranged from 44.68%, of the grader with less experience, to 78.72% referent to the most experiment grader. The latest had the lower specificity (43.40%). The OCT findings which were significantly associated with ICGA PCV diagnosis were extrafoveal lesion ($p=0.012$), sharp protusion of retinal pigment epithelium (RPE) with moderate inner reflectivity ($p=0.027$), ondulation of RPE ($p=0.016$), visible thin Bruch ($p=0.018$) and presence of retinal fluid ($p=0.027$). The retinography presence of reddish-orange nodules ($p=0.027$) and lipidic exsudation ($p=0.001$) also had a significant association.

Conclusions

PCV diagnosis without assessing ICGA images revealed a good sensitivity and specificity. The graders' experience seems to be a determinant factor. Experience graders were more able to detect PCV, but also had a higher rate of false positives.

References

1. Yannuzzi LA et al. Retina. 2012.
2. Spaide RF et al. Indocyanine green videoangiography of idiopathic polypoidal choroidal vasculopathy. Retina. 1995.
3. Kameda T et al. Polypoidal choroidal vasculopathy examined with en face optical coherence tomography. Clinical & experimental ophthalmology. 2007.
4. Saito M et al. Cross-sectional and en face optical coherence tomographic features of polypoidal choroidal vasculopathy. Retina. 2008.