ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 11, Issue, 02, pp.1614-1615, February, 2019

DOI: https://doi.org/10.24941/ijcr.34308.02.2019

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

CENTRAL SEROUS CHORIORETINOPATHY IN ELDERLY SUBJECTS: ANGIOGRAPHIC AND TOMOGRAPHIC CHARACTERISTICS

Dan Călugăru and *Mihai Călugăru

Department of Ophthalmology, University of Medicine Cluj-Napoca, Romania

ARTICLE INFO

Article History:
Received 02nd November, 2018
Received in revised form
14th December, 2018
Accepted 21st January, 2019
Published online 28th February, 2019

Key Words:

Chronic Central Serous Chorioretinopathy, Elderly Subjects, Best-Corrected Visual Acuity, Subretinal Fluid.

ABSTRACT

The authors are commenting on the article entitled "Central serous chorioretinopathy in elderly subjects: angiographic and tomographic characteristics" published by Bae *et al*. in Graefes Archive for Clinical and Experimental Ophthalmology 2019; 257(2): 279-288. Published online December 18, 2018.The authors concluded that central serous chorioretinopathyin elderly patients was associated with a lower resolution of serous detachment of the neurosensory retina, increased impairment of retinal pigment epithelial layer, foveal thinning, and worse visual outcome. However, the validation, extrapolation, and generalizability of these outcomes can be made only after inclusion in the stepwise multivariate logistic regression analysis of all the missing data mentioned by us in addition to the baseline characteristics already assessed in this study, serving to identify the key drivers correlated with final visual acuity and resolution of the subretinal detachment after treatment.

***Citation: Dan Călugăru and Mihai Călugăru,* 2019.** "Central serous chorioretinopathy in elderly subjects: angiographic and tomographic characteristics", *International Journal of Current Research*, 11, (02), 1614-1615.

INTRODUCTION

We would like to address several challenges that have arisen from the study by Bae *et al. (*2019), which can be specifically summarized below.

1. The study was retrospectively conducted and investigated the angiographic, tomographic, and clinical characteristics of idiopathic central serous chorioretinopathy (CSC) in elderly subjects.
2. The CSC resides within the pachychoroid disease spectrum (Cheung *et al.,* 2019). However, the characteristic abnormalities of the pachychoroid disease phenotype and the retinal pigment epithelium (RPE), which are primarily involved in the CSC and have a contribution in the CSC pathogenesis, have not been documented with the multimodal imaging in subjects of this study.
3. In terms of the pachychoroid phenotype, there were no data on the assessment of the following alterations at enrollment and at the end of the follow-up period: the increase in choroidal thickness (focal or diffuse); the distribution of the pachyvessels in the Haller's layer (in a diffuse or patchy manner); and the focal or diffuse attenuation of the inner choroid (thinning/absence of the choriocapillaris and intermediate caliber vessels within Sattler's layer in areas overlying abnormally dilated Haller's layer vessels). Of note, the perfusion indices (density of blood vessels and flow index) were not calculated for the choriocapillaris zone on the Optical Coherence Tomography (OCT) angiography. In addition, the OCT angiography, which allows detection of choroidal neovascularization (CNV) secondary to chronic CSC not visible with other imaging techniques (neovascular chronic CSC) and which seems to be helpful to show an abnormal blood flow corresponding to CNV complicating the chronic CSC, has not been used (Călugăru *et al*., 2018).
4. With respect to the qualitative status of the RPE, which has been compromised by choroidal abnormalities in patients with CSC, there are no data relating to the OCT patterns of some alterations of the retinal pigment epithelial band – Bruch membrane complex at presentation and at end of the follow-up period. Specifically, the spectrum of these changes involved in the different stages of the CSC is wide and includes: pigment migration within the neurosensory retina, RPE porosity, microrips or blowouts in the RPE, focal RPE atrophy, RPE hypertrophy, and diffuse ooze within or adjacent to the decompensated RPE (Călugăru *et al*., 2018a).
5. The overlying photoreceptor cell layer may suffer progressive and irreversible damages in cases of the chronic CSC because of the persistence of the subretinal fluid caused by pronounced dysfunctional RPE outer blood-retinal barrier. There were no data referring to the multimodal imaging of the overlying photoreceptor cell layer, including the following alterations: elongation of the photoreceptor outer segments, thinning of the outer

***Corresponding author:* Mihai Călugăru**
Department of Ophthalmology, University of Medicine Cluj-Napoca, Romania.

nuclear layer, interdigitation zone loss, and external limiting membrane band defects allowing fluid to enter the retina and causing intraretinal fluid in some cases, sometimes referred to as "cystoid macular degeneration" (Călugăru *et al*., 2018b). Also, the location of the intraretinal fluid in these cases (ganglion cell layer or inner/outer retinal layers) was not highlighted. Moreover, the perfusion indices (density of blood vessels and flow index) for the outer retina zone (photoreceptor) were not calculated on OCT angiography. Of note, although the outer retina does not have vessels, the perfusion indices can be still determined.

6. There were no comparative data between the two groups (young and elderly groups) referring to the baseline serum potassium levels, the renal function, the level of endogenous and exogenous corticosteroids, the type personality of the patients, and the testing of patients with regard to the Helicobacter pylori infection.

Altogether, the authors of this study ascertained that CSC in elderly patients was associated with a lower resolution of serous detachment of the neurosensory retina, increased impairment of retinal pigment epithelial layer, foveal thinning, and worse visual outcome. However, the validation, extrapolation, and generalizability of these outcomes can be made only after inclusion in the stepwise multivariate logistic regression analysis of all the missing data mentioned by us in addition to the baseline characteristics already assessed in this study, serving to identify the key drivers correlated with final visual acuity and resolution of the subretinal detachment after treatment.

Acknowledgments: All authors have completed and submitted the ICMJE form for disclosure of potential conflicts of interest. No financial disclosures. Both authors (D.C and M.C) were involved in the design and conduct of the study; collection, management, analysis and interpretation of the data; and preparation, review or approval of the manuscript. The authors have full control over the primary data and they agree to allow the International Journal of Current Research to review their data if requested.

Conflict of interest: All authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

REFERENCES

Bae, K., Nam, S.W., Kang, S.W., Kim, E.S.,Yu, S.Y., Kim, K.T. and Kim, S.J. 2019. Central serous chorioretinopathy in elderly subjects: angiographic and tomographic characteristics.*Graefes Arch ClinExpOphthalmol.,*257:279-288.

Cheung, C.M.G., Lee, W.K.i., Koizumi, H., Dansingani, K., Lai, T.Y.Y. and Freund. K.B. 2019. Pachychoroid disease. *Eye* 33:14-33.

Călugăru, D. and Călugăru, M. 2018. Clinical features of central serous chorioretinopathy with type 1 choroidal neovascularization. *Am J Ophthalmol.,* 195:245-246.

Călugăru, D, Călugăru, M. 2018a. Half-time photodynamic therapy in treatment of chronic central serous chorioretinopathy. *Int J Curr Res.,* 10:74701-74702.

Călugăru, D. and Călugăru, M. 2018b. Clinical characteristics of chronic central serous chorioretinopathy patients with insufficient response to reduced-settings photodynamic therapy. *Int J Curr Res.,* 10:71192-71193.

****