

## Comment

## Does Subretinal Fluid Influence Choroidal Thickness (ChT) and Structure in Preeclampsia with Serous Retinal Detachment? Comment on Fukui et al. Changes in Choroidal Thickness and Structure in Preeclampsia with Serous Retinal Detachment. J. Clin. Med. 2023, 12, 609

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We read with great interest the article by Fukui A et al. concerning the "Changes in Choroidal Thickness (ChT) and Structure in Preeclampsia with Serous Retinal Detachment" [1].

We really appreciated this paper because it focuses on visual impairments during pregnancy.

These types of studies are always very interesting, but we would like to make some comments.

In recent years, ChT measurements have been used to try to explain several conditions [2–4].

ChT is axial length related, and according to the literature, it is thicker in shorter eyes and thinner in longer ones. In this study, it was not evaluated; therefore, the ChT of different patients is not comparable and their variations are not reliable.

We are aware that axial length measurements need some corrections, but they are precise enough for such an aim [5,6].

In the case of macular edema, the exudation in the subretinal space makes it difficult to identify the right point to place the marker for the measurement because of the disappearance of the foveal depression [7]. In this paper, it seems that the follow-up setting was not used to match the images, as it appears from the dissimilar appearance of the optic nerve sheath, so the measurements of ChT cannot be perfectly comparable.

Finally, in our opinion, CVI has a limitation because it can be influenced by the socalled blooming effect. In particular, stromal and luminal areas are affected by the setting of signal amplification; therefore, when high signal amplification is used, the image will appear brighter and the amount of white pixels will be greater, and the opposite will happen using a low setting. This artifact, which is present in the echographic examinations [8,9], also seems to be present in the case of OCT. We are afraid that this effect could also influence the binarization utilized in the CVI evaluation, increasing the low reflective areas, considered to be the luminal ones, when the amplification is low, and reducing them when the amplification is higher.

Conflicts of Interest: The authors declare no conflict of interest.

**Summary Statement:** Standardized measurements are needed to obtain reliable data; therefore, the aim of this letter is to clarify some points.



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## References

- 1. Fukui, A.; Tanaka, H.; Terao, N.; Nagata, K.; Matsumoto, A.; Kusada, N.; Kojima, K.; Sotozono, C. Changes in Choroidal Thickness and Structure in Preeclampsia with Serous Retinal Detachment. J. Clin. Med. 2023, 12, 609. [CrossRef]
- De Bernardo, M.; Salerno, G.; Gioia, M.; Capasso, L.; Russillo, M.C.; Picillo, M.; Erro, R.; Amboni, M.; Barone, P.; Rosa, N.; et al. Intraocular pressure and choroidal thickness postural changes in multiple system atrophy and Parkinson's disease. *Sci. Rep.* 2021, 11, 8936. [CrossRef] [PubMed]
- 3. De Bernardo, M.; Altieri, V.; Coppola, A.; Gioia, M.; Rosa, N. Choroidal evaluation in patients under alpha-lytic therapy. *Graefe's Arch. Clin. Exp. Ophthalmol.* **2020**, 258, 2729–2736. [CrossRef]
- 4. De Bernardo, M.; Vitiello, L.; Battipaglia, M.; Mascolo, F.; Iovino, C.; Capasso, L.; Ciacci, C.; Rosa, N. Choroidal structural evaluation in celiac disease. *Sci. Rep.* **2021**, *11*, 16398. [CrossRef] [PubMed]
- 5. De Bernardo, M.; Salerno, G.; Cornetta, P.; Rosa, N. Axial length shortening after cataract surgery: New approach to solve the question. *Transl. Vis. Sci. Technol.* **2018**, *7*, 34. [CrossRef] [PubMed]
- 6. De Bernardo, M.; Cione, F.; Capasso, L.; Coppola, A.; Rosa, N. A formula to improve the reliability of optical axial length measurement in IOL power calculation. *Sci. Rep.* **2022**, *12*, 18845. [CrossRef] [PubMed]
- 7. Gioia, M.; De Bernardo, M.; Rosa, N.; Capasso, L. Comment on: Evolution of Dome-Shaped Macula is due to Differential Elongation of the Eye Predominant in the Peri-dome Region. *Am. J. Ophthalmol.* **2021**, *226*, 270–275. [CrossRef] [PubMed]
- 8. De Bernardo, M.; Rosa, N. Comment on 'Invasive and noninvasive means of measuring intracranial pressure: A review'. *Physiol. Meas.* **2018**, *39*, 058001. [CrossRef] [PubMed]
- De Bernardo, M.; Rosa, N. Comment on "Optic Nerve Sheath Diameter Ultrasound Evaluation in Intensive Care Unit: Possible Role and Clinical Aspects in Neurological Critical Patients' Daily Monitoring". *BioMed Res. Int.* 2018, 2018, 6154357. [CrossRef] [PubMed]

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