

Subretinal deposits in Preeclampsia and Malignant hypertension: implications for age-related macular degeneration (AMD)

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Celebrating
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Disclosure



**Oscar Otero-Marquez MD, Hyewon Chung MD PhD,
Christopher Lee MD and R. Theodore Smith MD PhD.**

No conflicting relationships exists for any author.

Summary



“Choroidal ischemia and the appearance of subretinal drusenoid deposit-like lesions in patients with preeclampsia and malignant hypertension choroidopathy are related, and important in understanding the mechanism of the subretinal drusenoid deposits of age-related macular degeneration.”

Purpose

- Describe the incidence of subretinal deposits that are identical on imaging to subretinal drusenoid deposits (SDD) in AMD, in patients with hypertensive choroidopathy secondary to severe preeclampsia (PE) and malignant hypertension (MHT), and the implications of this ischemic choroidopathy for the pathophysiology of SDD in AMD.

Design

- Retrospective cross-sectional study. Subjects: 33 PE patients and 25 MHT patients with SRD in at least one eye were included.

Methods

- Serial multimodal images of eyes with hypertensive choroidopathy secondary to PE and MHT were reviewed at two time points, the acute phase (within 4 weeks of initial hypertensive insult) and the recovery phase (beyond 4 weeks).

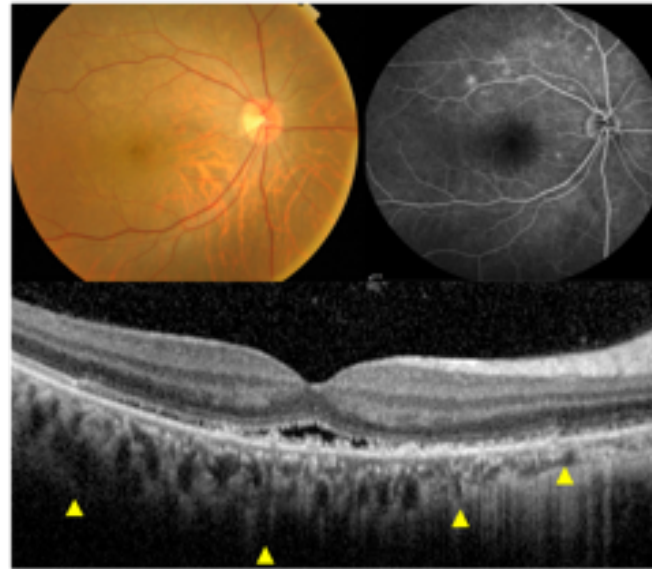
Results

- SDD-like lesions were observed **exclusively** in eyes with Serous retinal detachments (SRD).
- SRD occurred in 87.87% of eyes of PE patients and in 94% of eyes of MHT patients.
- SDD-like lesions occurred in 28.57% of all eyes with SRD; in 32.76% of eyes with SRD from the PE group and 23.40% of eyes with SRD from the MHT group.
- Fluorescein angiography (FA), indocyanine green angiography (ICGA), and optical coherence tomography angiography (OCTA) disclosed underlying choriocapillaris ischemia in all cases (12 eyes) in which they were performed.

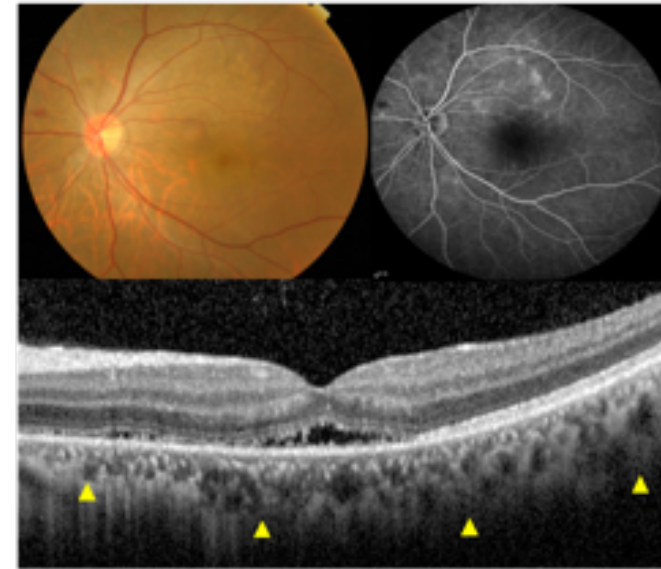


SDD-like lesions & Pre-eclampsia

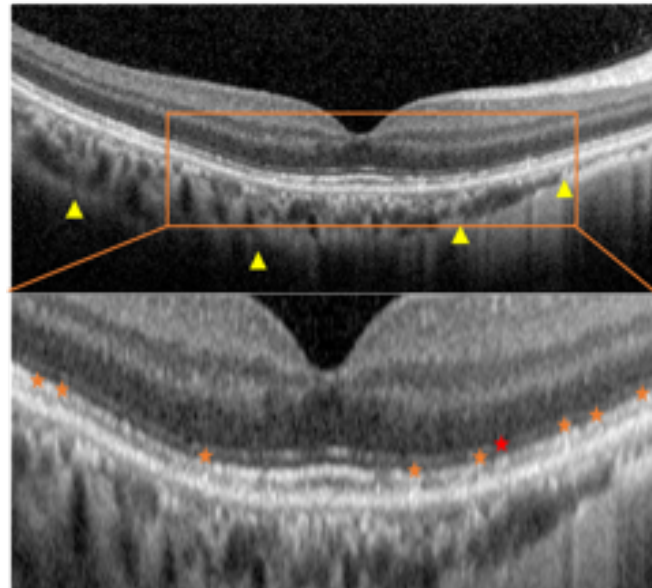
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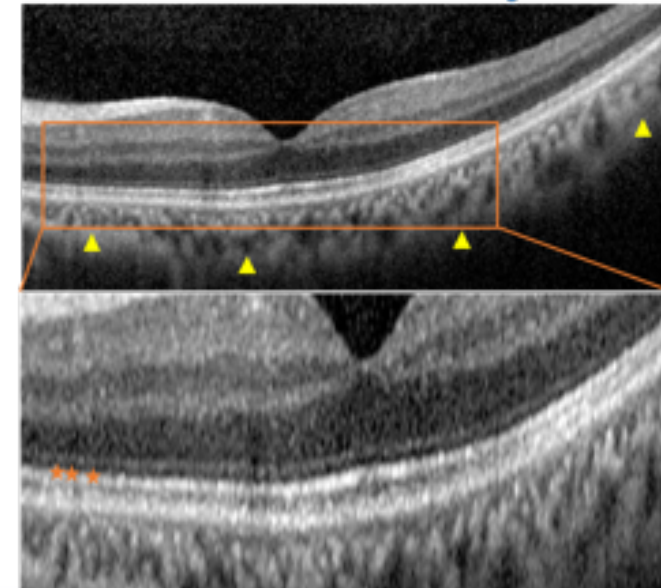
OS Acute



OD Recovery

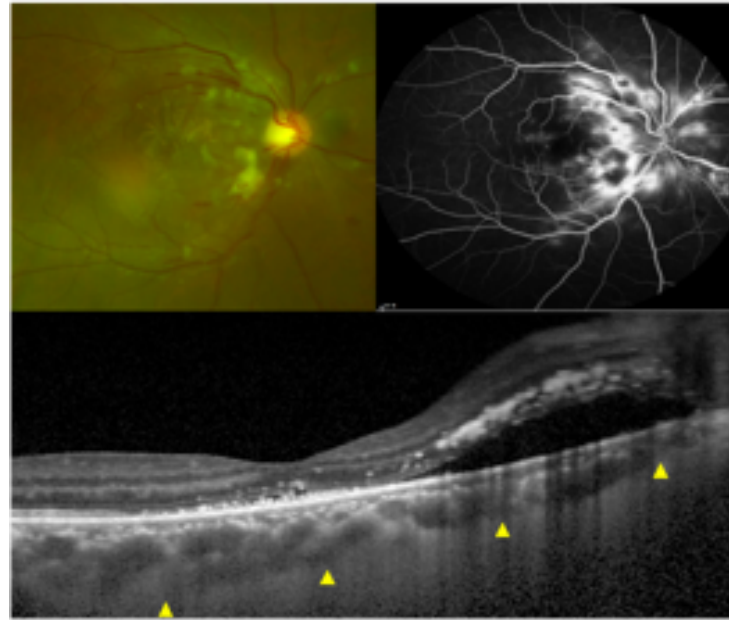


OS Recovery

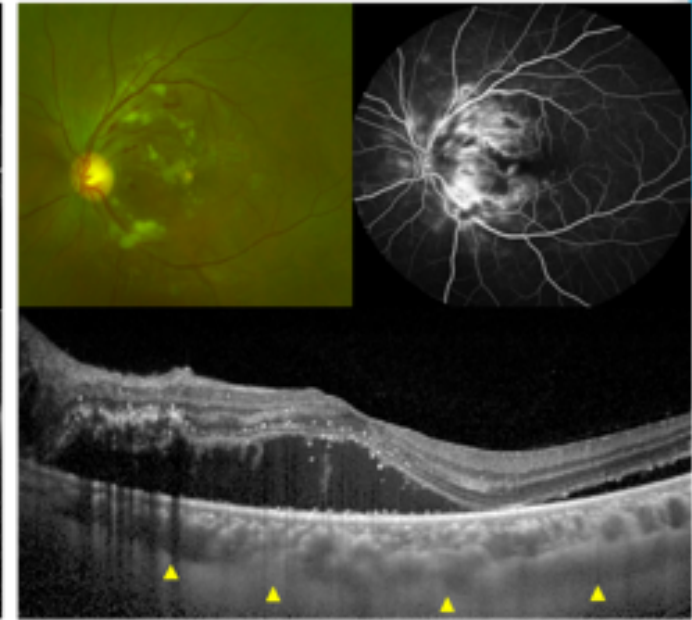


SDD-like lesions & Malignant hypertension

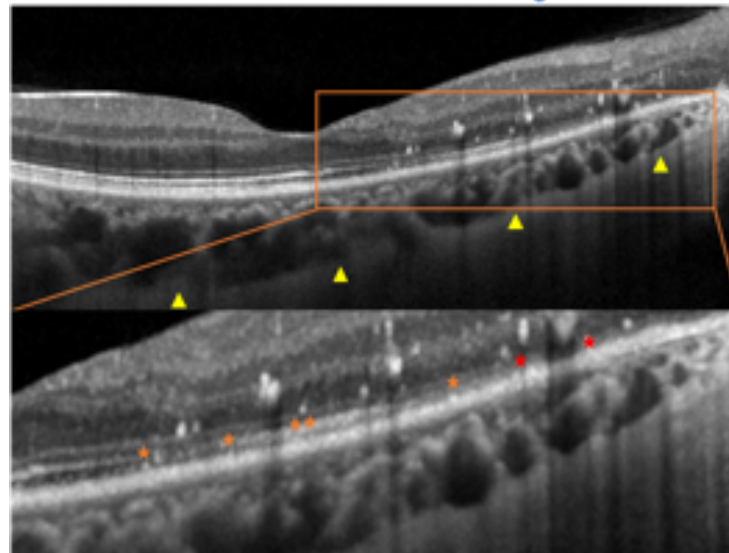
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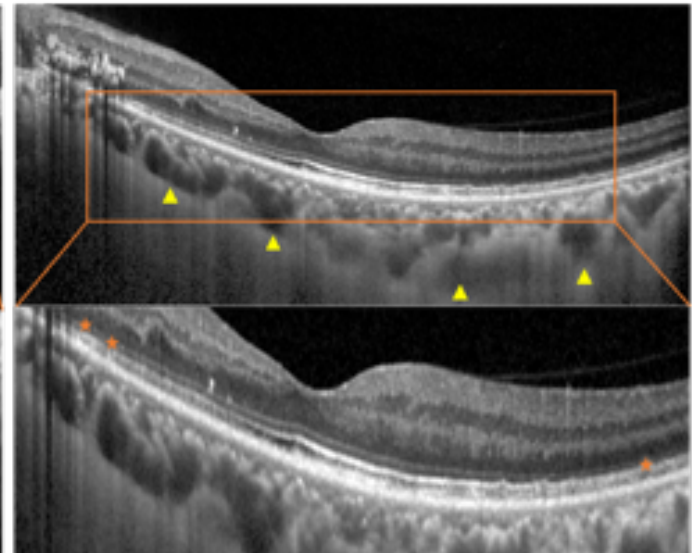
OS Acute



OD Recovery

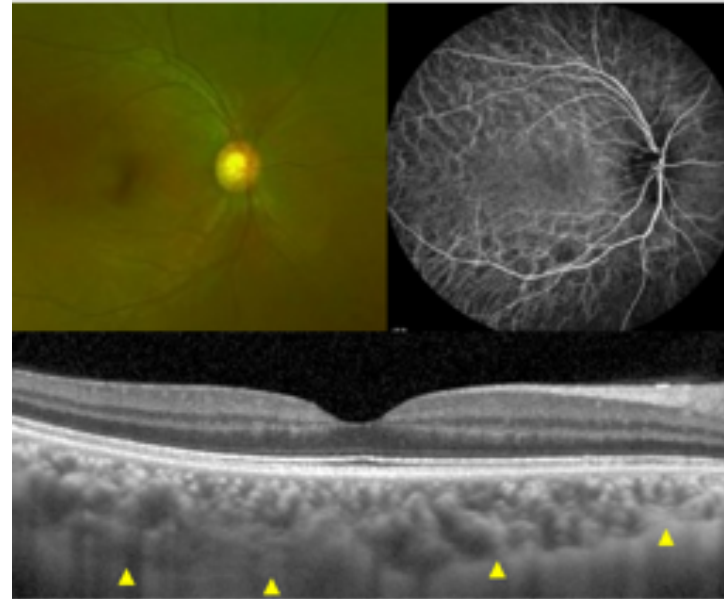


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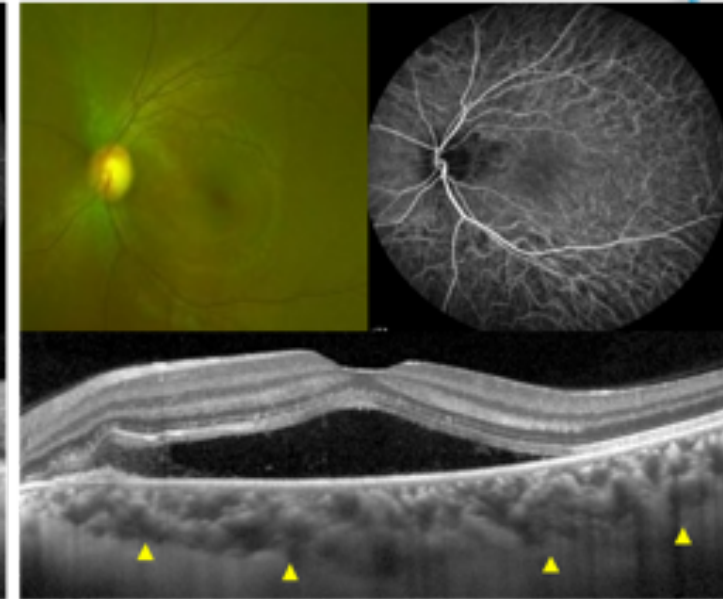


SDD-like lesions & ChC ischemia

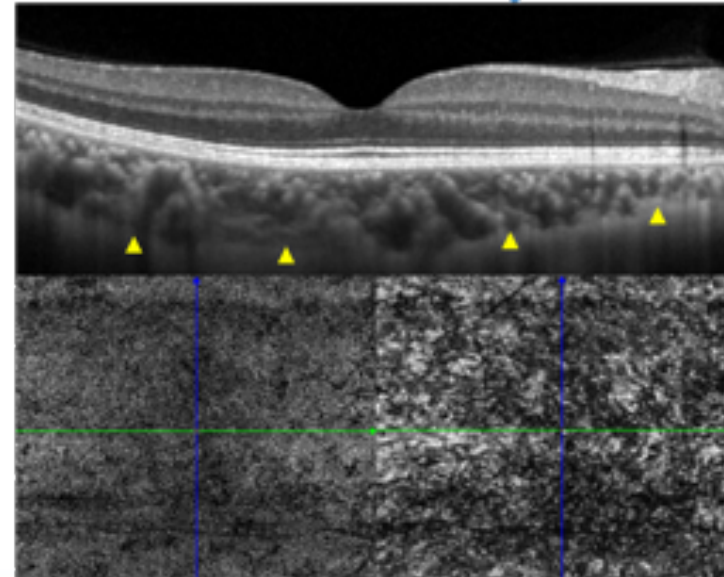
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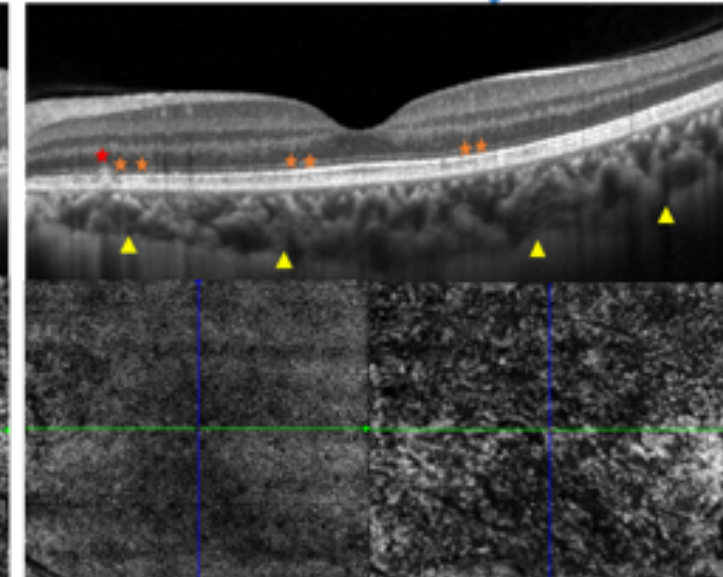
OS Acute



OD Recovery



OS Recovery



Conclusion

- Choroidal ischemia may be the underlying mechanism of SDD-like lesions in patients with PE and MHT choroidopathy.
- PE/MHT choroidopathy appears to be a model for developing lesions similar to SDD in AMD on the basis of choroidal insufficiency, and as such, may offer further insights into the pathoetiology of SDD in AMD.



Thank You!

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