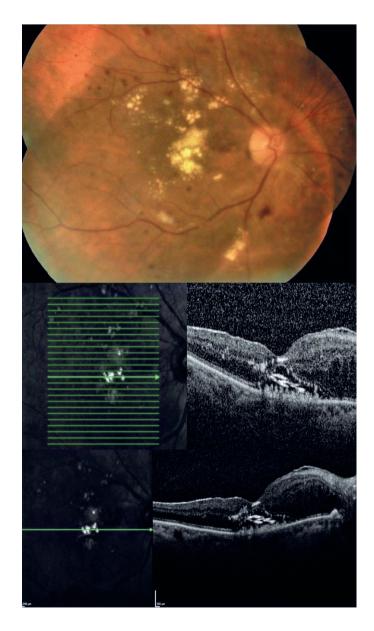
Appearance of an unusual sign on optical coherence tomography in diabetic maculopathy: subretinal onion rings

Kemal Tekin¹, Merve Inanc¹, Cemile Ucgul Atilgan¹

1. Ophthalmology Department, Ulucaniar Eve Training and Research Hospital, Ankara, Turkey,

A 65-year-old female patient with type 2 diabetes mellitus and hypercholesterolemia presented with moderately graded nonproliferative diabetic retinopathy with widespread hard exudates (HEs) in the macula (see the top of the figure). The HEs appeared as goldenyellow lesions on the fovea. In addition, pale-yellow HEs were detected in regions temporal and superior to the fovea, surrounding the foveal lesions (see the top of the figure). Optical coherence tomography (OCT) of the fovea showed serous macular detachment and nasally cystoid macular edema, in addition to an unusual finding of intensely hyper-reflective horizontal deposits over the retinal pigment epithelium without posterior shadowing; these were termed "onion ring signs" (see the middle bottom of the figure).

In patients with macular neovascularization, cholesterol crystals are seen as hyper-reflective horizontal deposits in the subretinal pigment epithelium-basal laminar space, which appear as highly intense signals without any shadowing on OCT(1,2). Venkatesh et al.(3) also used OCT and found onion ring signs in patients with diabetic retinopathy.



Submitted for publication: June 13, 2024 Accepted for publication: July 26, 2024

Funding: This study received no specific financial support.

Disclosure of potential conflicts of interest: The authors declare no potential conflicts of interest.

Corresponding author: Kemal Tekin. E-mail: kemal htepe@hotmail.com

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AUTHORS' CONTRIBUTIONS:

Significant contribution to conception and design: Kemal Tekin, Merve Inanc, Cemile Ucgul Atilgan. Data acquisition: Kemal Tekin, Merve Inanc, Cemile Ucgul Atilgan. Data analysis and interpretation: not applicable. Manuscript drafting: Kemal Tekin. Significant intellectual content revision of the manuscript: Kemal Tekin, Merve Inanc, Cemile Ucgul Atilgan. Final approval of the submitted manuscript: Kemal Tekin, Merve Inanc, Cemile Ucgul Atilgan. Statistical analysis: not applicable. Obtaining funding: not applicable. Supervision of administrative, technical,

or material support: not applicable. Research group leadership: not applicable.

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