

Tomographic fundus features in pseudoxanthoma elasticum: comparison with neovascular age-related macular degeneration in Japanese patients.

Ellabban AA, Hangai M, Yamashiro K, Nakagawa S, Tsujikawa A, Yoshimura N.

Source

1] Department of Ophthalmology and Visual Sciences, Kyoto University Graduate School of Medicine, Kyoto, Japan [2] Department of Ophthalmology, Suez Canal University, Ismailia, Egypt.

Abstract

PurposeTo determine the retinal and subretinal features characteristic to pseudoxanthoma elasticum (PXE) compared with age-related macular degeneration by using spectral-domain optical coherence tomography (SD-OCT) in Japanese patients.
MethodsWe reviewed colour fundus photographs, fluorescein angiograms, and SD-OCT images of 52 eyes (27 Japanese patients) with angioid streaks (AS) due to PXE. Then we compared the incidence of tomographic features between 24 eyes (24 patient) with choroidal neovascularization (CNV) secondary to AS and 44 eyes (44 patients) with CNV secondary to age-related macular degeneration (AMD).
ResultsSecondary CNV was found in 44 eyes (84.6%) of 52 patients with PXE during follow-up. We found characteristic round or ovoid tubular structures with highly reflective annular lines (termed 'outer retinal tubulation' (ORT)) in 31 (70.5%) of 44 eyes with CNV, but none were found in eyes without CNV. We also found characteristic undulations of Bruch's membrane in 38 (73.1%) eyes with AS. The incidence of ORT was significantly greater in eyes with CNV secondary to AS (70.8%; $P=0.005$) compared with eyes with CNV secondary to AMD (34.1%). The incidence of Bruch's membrane undulation was significantly greater in eyes with CNV secondary to AS (70.8%; $P<0.0001$) than in eyes with CNV secondary to AMD (11.4%).
ConclusionSD-OCT imaging clearly revealed a greater incidence of unique lesions, including ORT and Bruch's membrane undulation, in eyes in PXE patients with CNV secondary to AS than in eyes with CNV secondary to AMD.
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