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### BEYOND SYMPTOMS: MULTIMODAL ULTRA-WIDEFIELD IMAGING IN A DIABETIC PATIENT

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Multimodal imaging plays a well-established role in diagnosing retinal diseases and may also reveal clues to systemic conditions. Here we report a case of an asymptomatic diabetic patient with an unexpected retinal vascular finding.

#### Case report.

A 43-year-old asymptomatic man with type 2 diabetes mellitus (DM) presented to our retina clinic for diabetic retinopathy (DR) monitoring. He had been diagnosed with DM II three years ago, following an episode of acute pancreatitis. The baseline screening for DR was unremarkable except for a cotton-wool spot in the left eye. The patient lost follow-up for three years.

At presentation, his visual acuity was 20/20 in both eyes (OU), and the anterior chamber examination was unremarkable, with normal intraocular pressure (IOP) in both eyes. The Ultra-wide field (UWF) color fundus photography (CFP, Optos plc) showed diffuse creamy-white vessels consistent with lipemia retinalis, along with a few microaneurysms (MAs) suggestive of mild non-proliferative diabetic retinopathy (NPDR) (Fig.1). The optical coherence tomography (SD-OCT) (Heidelberg HRA+OCT) revealed a normal foveal profile with no evidence of edema. Numerous inner hyper-reflective point-like dots of variable caliber were noticed in the B-scan sections, corresponding to the blood vessel (Fig.2). A 21x26 mm UWF-swept-source (SS)-OCT (Dream OCT- Intalight) coherently displayed the widespread inner hyper-reflective findings extending to the periphery. Meanwhile, the 130°-UWF- OCT angiography (OCT-A) showed no microvascular changes or ischemic areas. Additionally, the UWF-fluorescein angiography (FA) revealed no abnormalities, except for slightly delayed venous filling and a few MAs consistent with mild NPDR. The patient was urgently referred to his primary care physician for evaluation and blood work.

Lipemia retinalis (LR) is a rare ocular condition associated with potentially lethal metabolic condition, but it is frequently missed. We report the use of UWF multimodal imaging for identifying LR, even in asymptomatic patients, thereby enabling timely intervention for this serious yet treatable condition.