


---

**Clinical vignette**

Incidental finding of a ruptured thin-cap fibroatheroma by optical coherence tomography

Owen Christopher Raffel and Ik-Kyung Jang*

Cardiology Division, Massachusetts General Hospital and Harvard Medical School, 55 Fruit Street, GRB 800, Boston, MA 02114, USA

*Corresponding author. Tel: +1 617 726 9226; fax: +1 617 726 7419; E-mail address: ijang@partners.org

A 61-year-old male with stable exertional angina presented for elective percutaneous treatment of a left anterior descending (LAD) coronary artery stenosis. Following successful stent deployment, [left coronary angiogram with position of stent demarcated by the two white arrows (Panel A)], optical coherence tomography (OCT) imaging of the LAD artery was performed (LightLab Imaging Inc., Westford, MA, USA). OCT imaging in a region free of significant angiographic stenosis (Panel A, black arrow) revealed a thin-cap fibroatheroma with a ruptured fibrous cap. Panel B shows an OCT image of the plaque with a thin fibrous cap (arrow) measured at 40 μm overlying a central lipid core (L). Another magnified image of the plaque in Panel D clearly illustrates rupture of the thin fibrous cap (arrow). Intravascular ultrasound imaging at the same position (Panel C) demonstrates the plaque (P), but is unable to distinguish any further morphological detail.