Optical coherence tomography images of iliac artery fibromuscular dysplasia

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A 47-year-old woman with a history of hypertension and cerebral infarction presented with intermittent claudication. No pulse was palpable in the bi-lateral dorsalis pedis, and peripheral arterial disease was suspected. The ankle-brachial index was 0.83 in the right leg and 0.76 in the left. Duplex sonography revealed severe stenosis in the bilateral external iliac artery (EIA) and renal artery. The EIA had the characteristic 'string of beads' appearance in angiography (Panel A), which was diagnosed as fibromuscular dysplasia (FMD). Endovascular therapy was performed for the EIA. There was a 30 mmHg pressure gradient in the FMD lesion. Optical coherence tomography (OCT) images revealed shrinkage of the media and mild thickness in the intima (Panels B and C), while three-dimensional OCT images showed a 'haustra coli'-like appearance (Panel D). After balloon angioplasty, the vessel was well dilated and claudication disappeared.

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