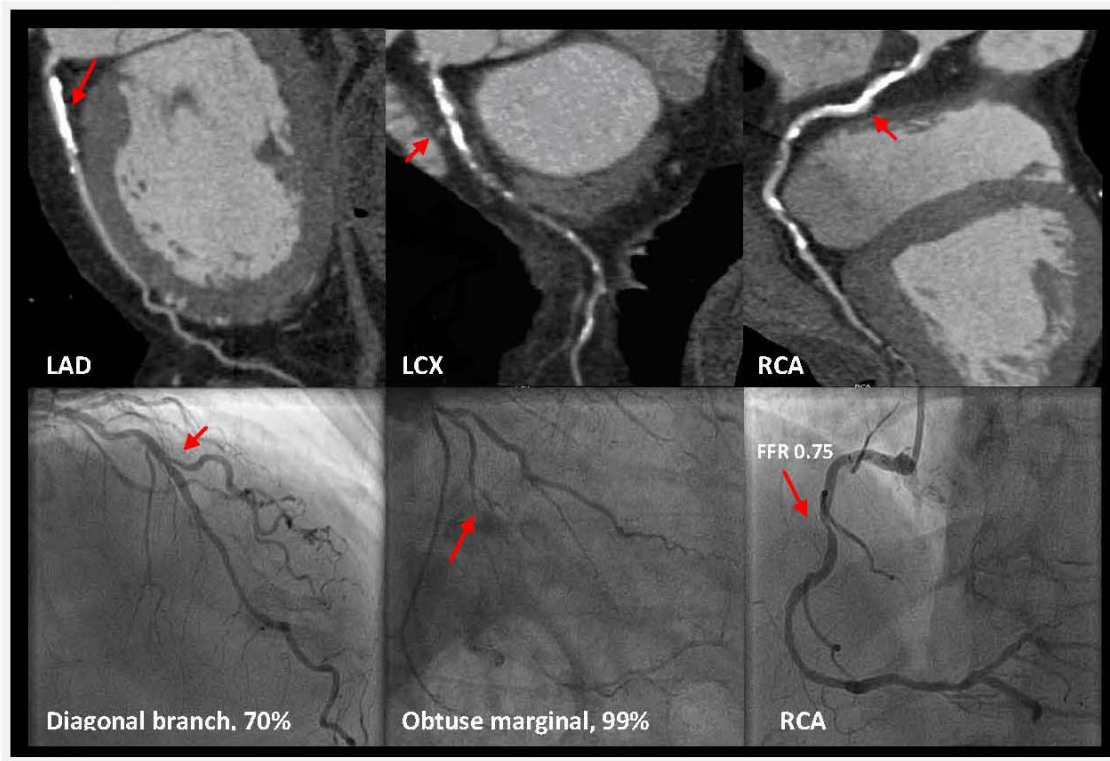
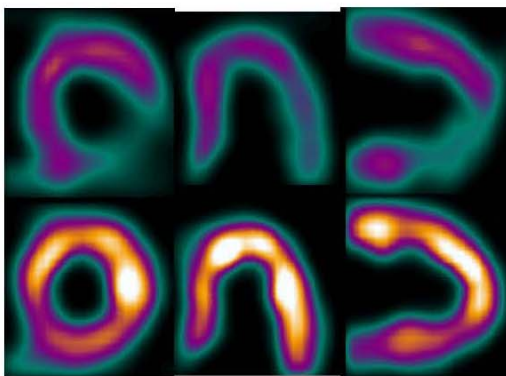
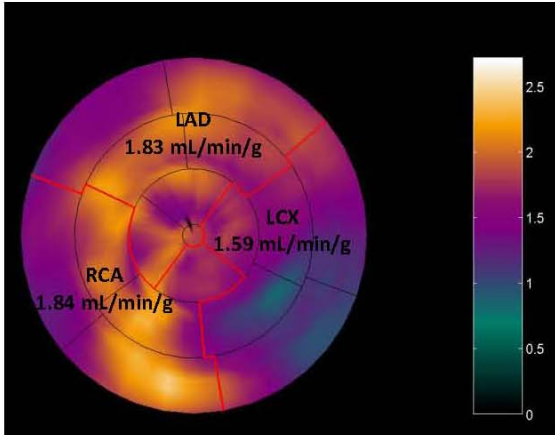
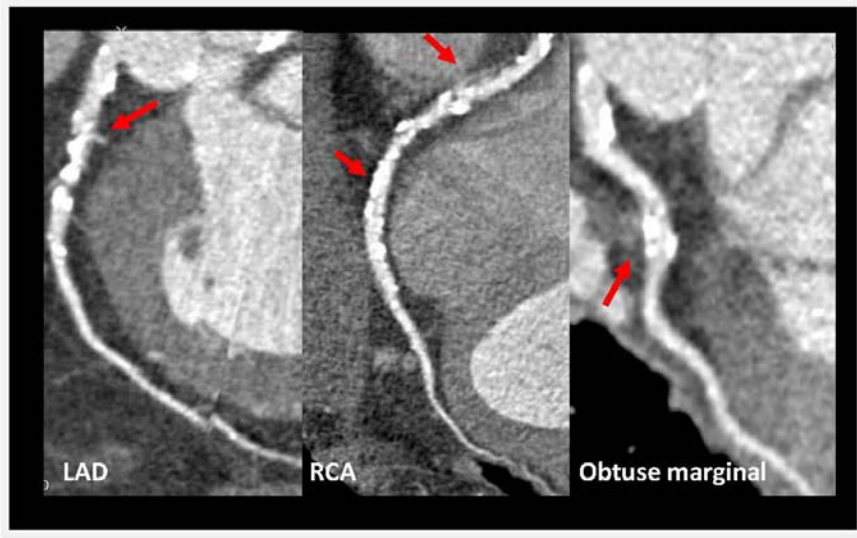
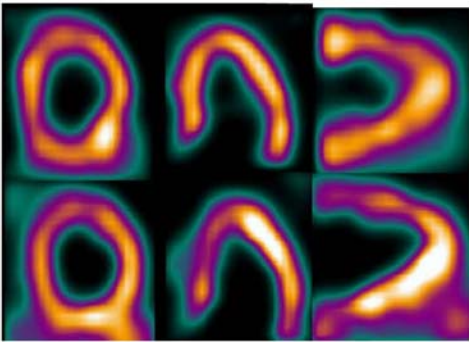
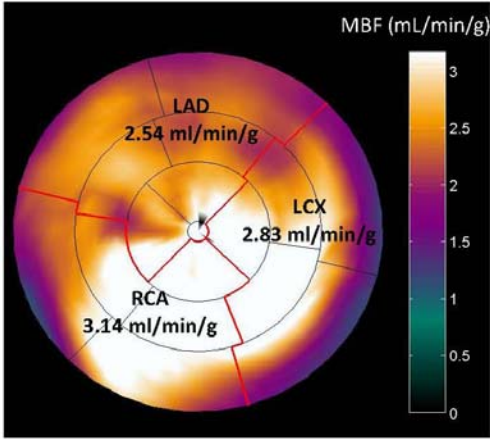
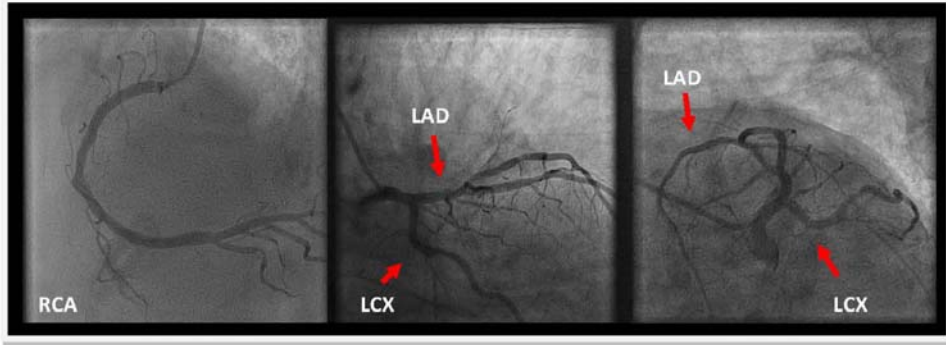


**Supplemental Figure 1.** A 52-year-old man with atypical anginal chest pain. PET showed a perfusion defect with an abnormal hyperemic perfusion ( $\leq 1.86$  mL/min/g) in the area supplied by the LAD. CT reconstructions show significant stenosis in the LAD (1-vessel disease). ICA showed significant 90% luminal narrowing of the LAD artery (1-vessel disease).

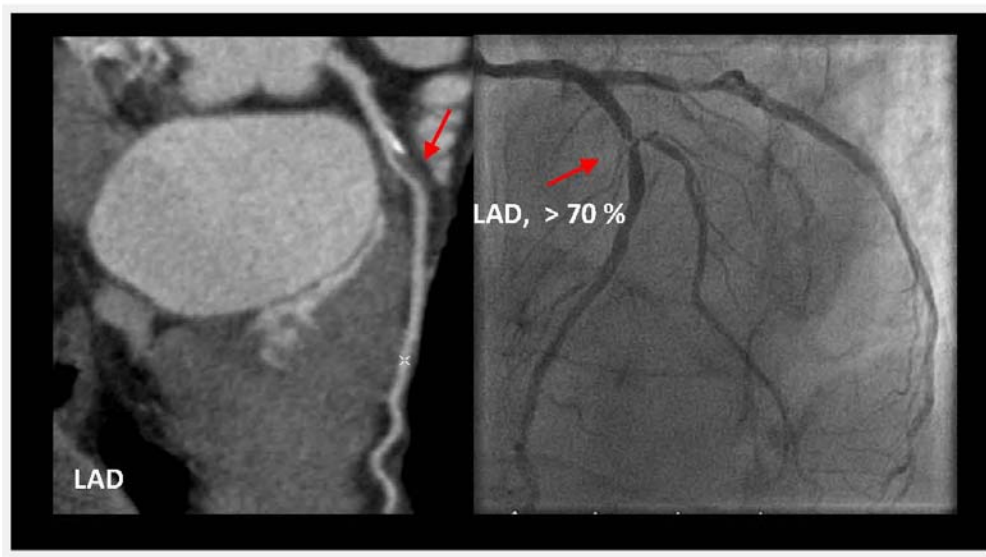
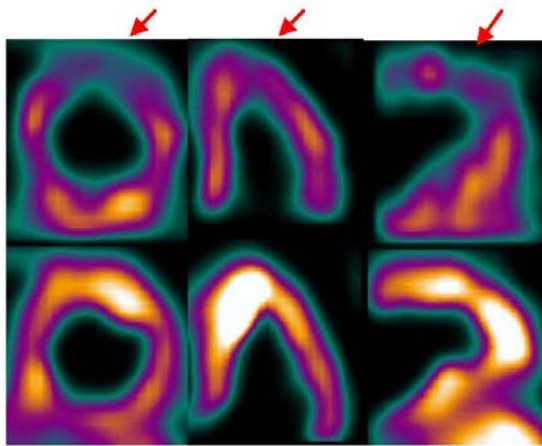
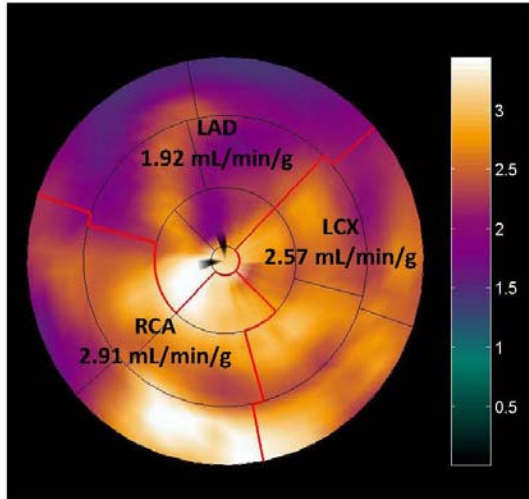


**Supplemental Figure 2.** A 62-year-old man with typical anginal chest pain. Parametric PET perfusion images displayed a regional defect in the vascular territory of the circumflex artery. Hyperemic MBF, however, was impaired in all vascular territories. Indeed CTCA also demonstrated lesions in the three coronary arteries which were confirmed by ICA.





**Supplemental Figure 3.** A 79-year-old male with atypical anginal chest pain. CT reconstructions show obstructive stenosis of the LAD, RCA, and obtuse marginal artery, while hyperemic perfusion was within normal range in all three vascular territories. ICA showed no obstructive stenoses, although wall irregularities could be observed consistent with diffuse calcification of the coronary arteries.



**Supplemental Figure 4.** A 69-year-old man with typical angina. Visual analysis of the parametric PET image showed a relative perfusion defect in the anterior wall, however hyperemic MBF was just above the diagnostic threshold of 1.86 mL/min/g conveying the result of the test negative for ischemia. CTCA showed a significant stenosis in the LAD (1-vessel disease) concordant with ICA.