A 61-year-old male patient with diabetes mellitus and hypertension was referred because of exertional chest pain. Coronary angiography was performed, and severe stenosis at the mid-segment of left anterior descending (LAD) artery, marginal obtuse branch of the circumflex artery, and descending posterior branch of the right coronary artery were assessed. Distal vessels were not suitable for surgery. To obtain prognostic information, dobutamine stress echocardiography was performed on an Artida 4D system (Toshiba Medical Systems, Japan). At rest, no anomalies on contractility and regional 3D strain were noted; at peak stress, the patient developed chest pain with new wall motion abnormalities in the apical and anterior segments. As part of a newly developed fusion imaging system (Toshiba Medical Systems), a 64-slice coronary tomography (CT) was performed on a Somaton Sensations (Siemens Healthcare, Germany). The images from both CT and stress echocardiography were merged into hybrid images on the same display. Panel A: a rest polar bullseye view with superimposed coronary arteries is depicted. Panel B: shows the 3D left ventricle at rest along with the complete coronary tree over it. Yellow colour indicates high 3D strain. Panel C: display the polar image at peak stress with darker colours and lower values of strain on LAD territory. Panel D: shows the 3D left ventricle at peak stress with anterior ischaemia (blue) depending on the LAD territory. Patient underwent percutaneous revascularization of LAD lesion. This new system is a promising tool, providing simultaneous anatomical and functional assessment and overcoming the limitations of both separate techniques.