

EVINCI-study- Evaluation of Integrated Cardiac Imaging for the Detection and Characterization of Ischemic Heart Disease

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The main purpose of the EVINCI-study is to test the impact of combined “anatomic-functional” non-invasive cardiac imaging for detection and characterization of Ischemic Heart Disease (IHD). The EVINCI-study is a prospective clinical European multicenter trial performed in a cohort of 700 patients with suspected IHD. Patients with intermediate pre-test probability will undergo clinical and biohumoral characterization, including novel circulating markers of cardiovascular risk. They will be admitted to a non-invasive cardiac evaluation, consisting of “anatomic” imaging, by multislice computerized tomography, combined with “functional” tests among radionuclide, magnetic resonance and ultrasound imaging. Heart catheterization will be performed to validate non-invasive diagnosis and follow-up to assess outcome. The diagnostic accuracy of combined non-invasive “anatomic-functional” imaging will be tested against reference methods for diagnosing epicardial coronary lesions (coronary angiography), vessel wall atherosclerosis (intracoronary ultrasound) and impaired coronary flow reserve (intracoronary doppler/pressure wire). The individual profiles from “anatomic-functional” cardiac imaging and “clinical-biohumoral” data will be combined and tested against outcome. A cost-benefit analysis (including an estimate of procedural/radiological risks) of the new diagnostic work-up will also be performed. A relevant part of the EVINCI-study will be dedicated to the development, in cooperation with the industry, of an advanced informatics’ platform able to synthetically present to the end-user (patients, physicians, etc.) the integrated cardiological diagnostic profile of the individual patient as resulting from clinical-biohumoral and multi-imaging assessment. Overall results will be disseminated in cooperation with the European Society of Cardiology (ESC) and will guide the work of a dedicated ESC Commission which will release specific European Recommendations.

Coordinator

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