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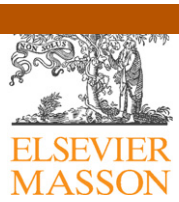

IMAGE

Non-atherosclerotic mild anterior myocardial ischaemia

Une ischémie myocardique antérieure athéroscléreuse

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A 41-year-old woman presented with a history of heart surgery at the age of 10 years for anomalous left coronary artery from the pulmonary artery. Reimplantation had been impossible and, in view of the high-grade collaterality from the right coronary artery, the surgeon had ligated the left main. Recovery had been uneventful and the woman remained asymptomatic for the next 30 years, with three full-term pregnancies and a full-time secretarial job. The patient was a former light smoker, with normal glycaemia and lipid profiles.

The patient had tried to take up physical exercise in 2008, but experienced typical chest pain at maximal effort when running. A stress test reached 110 W and became positive above 110 beats per minute. A single photon emission computed tomography scan (Fig. 1A) revealed reversible anteroseptoapical ischaemia with a 14% estimated hypoperfusion index. Consequently, a coronary angiogram (Fig. 1B) was done with a view to surgical revascularization. The left ventricular ejection fraction was 0.63. The right coronary artery was free of visible atheroma and re-injected the left artery via multiple anastomoses (Supplementary data).

Given the absence of any atherosclerotic coronary obstruction, we assumed that the anterior ischaemia was due exclusively to pressure loss in the distal part of the left anterior descending as a consequence of the collateral branching. Because of the high ischaemic level for this white-collar woman, with a long-lasting asymptomatic history and the lack of atheroma, we decided against redux surgery and pursued clinical follow-up with clearance for regular isometric physical activity, strict warnings against coronary risk lifestyle factors and the prescription of 50 mg atenolol.

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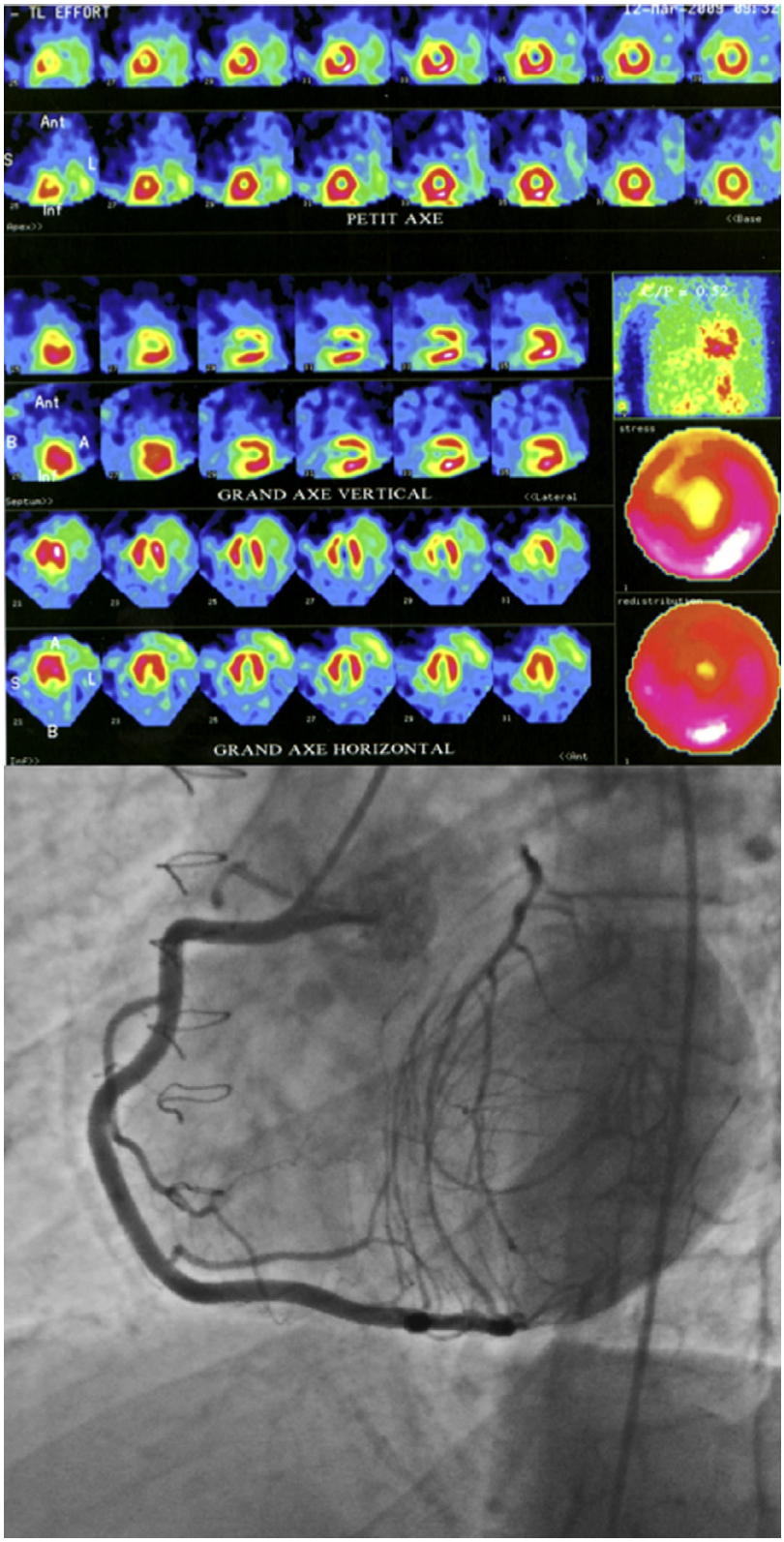

Figure 1. (A) Single photon emission computed tomography scan, revealing reversible anteroseptoapical ischaemia with a 14% estimated hypoperfusion index. (B) Right coronary angiogram showing total reinjection of the left artery via the RCA without visible atheroma.

Conflicts of interest

None.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.acvd.2009.09.011.