A rare case of left internal mammary artery disease before bypass surgery

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A 55-year-old man presented with history of, diabetes, hypertension and past history of right coronary artery disease for 10 years. He did not give any history suggestive of peripheral vascular disease, no supraclavicular bruit, and no difference in upper and lower extremity blood pressures. He presented with history of typical new onset angina since 1 month. He was subjected to echocardiography which showed good left ventricular systolic function, grade II diastolic dysfunction, and structurally normal heart. He underwent diagnostic coronary angiography, which showed proximal left anterior descending artery (LAD) diffuse disease from the ostium with maximum 90% stenosis, followed by mid LAD tubular 80% lesion and another 70% discrete lesion; he had insignificant non-flow limiting plaques in left circumflex and right coronary artery. Because of the diffuse disease of the LAD from the ostium, revascularization in the form of left internal mammary artery (LIMA) graft to LAD was planned. Left internal mammary artery was cannulated with 6 Fr internal mammary artery catheter.

Selective LIMA angiography showed significant (>90%) stenosis in the proximal part as shown in the images (Panels A–C) making this excellent graft unavailable for the coronary artery bypass graft (CABG). Left subclavian and vertebral arteries were disease free. Moreover, patient was successfully operated with saphenous vein graft to LAD. The use of the LIMA to bypass the LAD is the ‘gold standard’ of coronary artery revascularization. In this case report, we demonstrated that LIMA disease though very infrequent, its routine evaluation during coronary angiography prior to CABG should be a common practice especially when ischaemia in the LAD territory is present.

Panel (A) Anteroposterior projection showing significant (>90%) LIMA stenosis. (B) Left anterior oblique projection showing significant LIMA stenosis. (C) Right anterior oblique projection showing significant disease in the LIMA.

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