

Multivessel coronary artery disease in a patient with situs viscerum inversus totalis: a case report

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Introduction: Situs viscerum inversus totalis is a rare congenital abnormality characterized by a mirror-image transposition of both the abdominal and the thoracic organs. Frequency of situs inversus is 1:10000.¹

Case report: 77-year-old female patient with situs viscerum inversus totalis, type 2 diabetes, coronary artery disease and two coronary artery bypass grafts (VSM-LAD, VSM-OM1) was admitted to Coronary Care Unit because of acute non-ST-segment elevation myocardial infarction (NSTEMI). 12-lead electrocardiogram showed 1mm ST-segment depression in V5 and V6. High sensitivity cardiac troponin

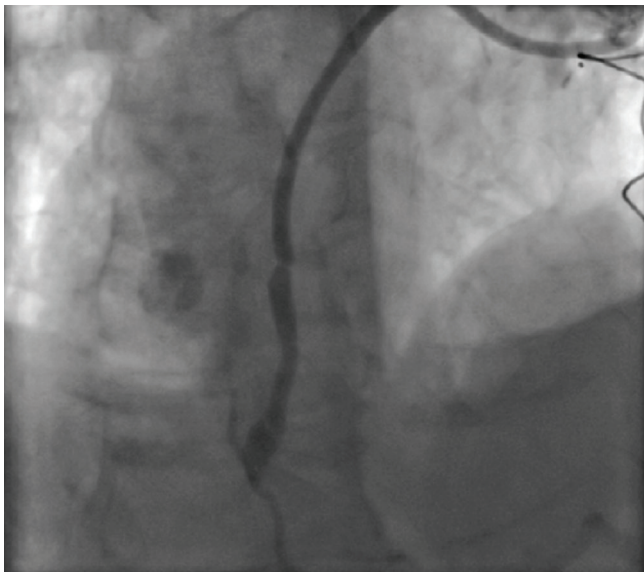


FIGURE 1. Angiography of the saphenous vein graft to the left anterior descending artery showing subtotal stenosis of the distal segment.

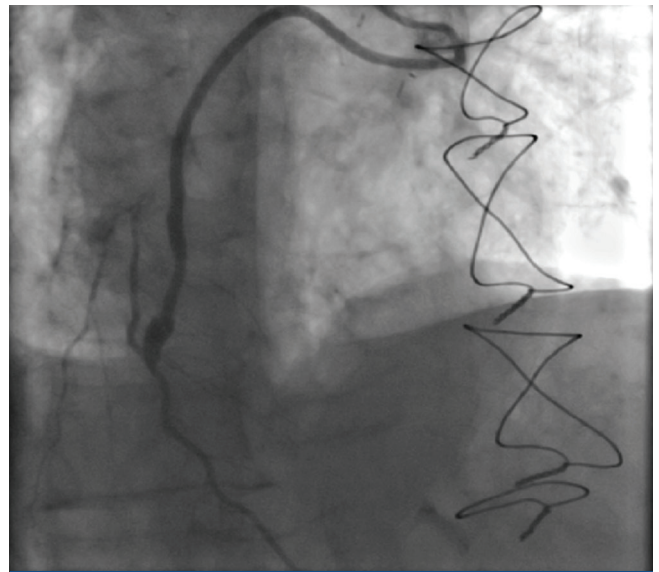


FIGURE 2. Angiography of the saphenous vein graft to the left anterior descending artery after percutaneous coronary intervention with drug-eluting stent implantation.

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I levels were elevated. Echocardiography showed a non-dilated left ventricle with preserved ejection fraction and no regional wall abnormality. Angiography showed subtotal stenosis of the distal segment of VSM-LAD bypass (Figure 1), no visible lumen irregularities of VSM-OM bypass and a significant calcified stenosis in the proximal segment of right coronary artery (RCA) and an occlusion of the distal segment. Angiography of left anterior descending artery and circumflex artery with previously known multiple significant stenoses was not repeated. In second act, a successful percutaneous coronary intervention (PCI) of VSM-LAD with implantation of drug eluting stent (DES) was performed (Figure 2). There were no periprocedural complications and the patient was soon discharged. Five months after discharge the patient developed NSTEMI again. Angiography showed no bypass stenoses and previ-

ously known stenoses of main coronary vessels were confirmed, including a subocclusive calcified stenosis of proximal segment of the RCA (**Figure 3**). The patient then underwent a PCI of proximal RCA, including rotablation and DES implantation with an optimal result (**Figure 4**). Although the main coronary arteries and venous bypasses in this patient are of atypical origin and direction, there were no major problems with the positioning of the guiding catheters.

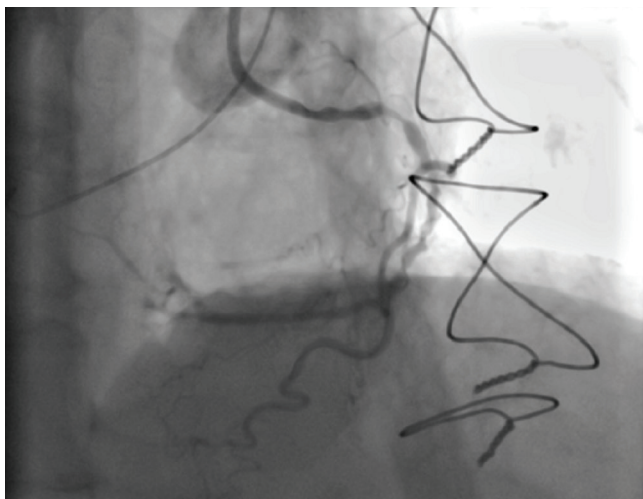


FIGURE 3. Angiography of the right coronary artery showing subocclusive stenosis of the proximal segment.

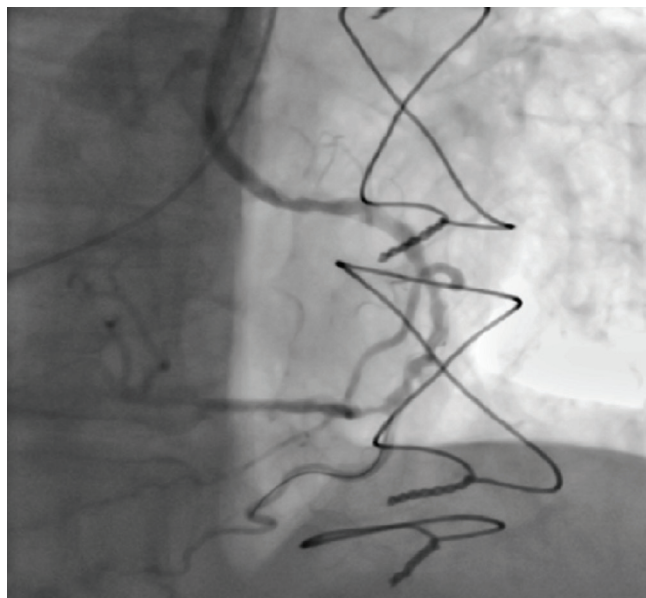


FIGURE 4. Angiography of the right coronary artery after percutaneous coronary intervention including rotablation and drug-eluting stent implantation.

Conclusion: Complicated percutaneous coronary interventions on native vessels and coronary artery bypass grafts in patients with situs inversus totalis are possible but pose a technical challenge.

LITERATURE

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