

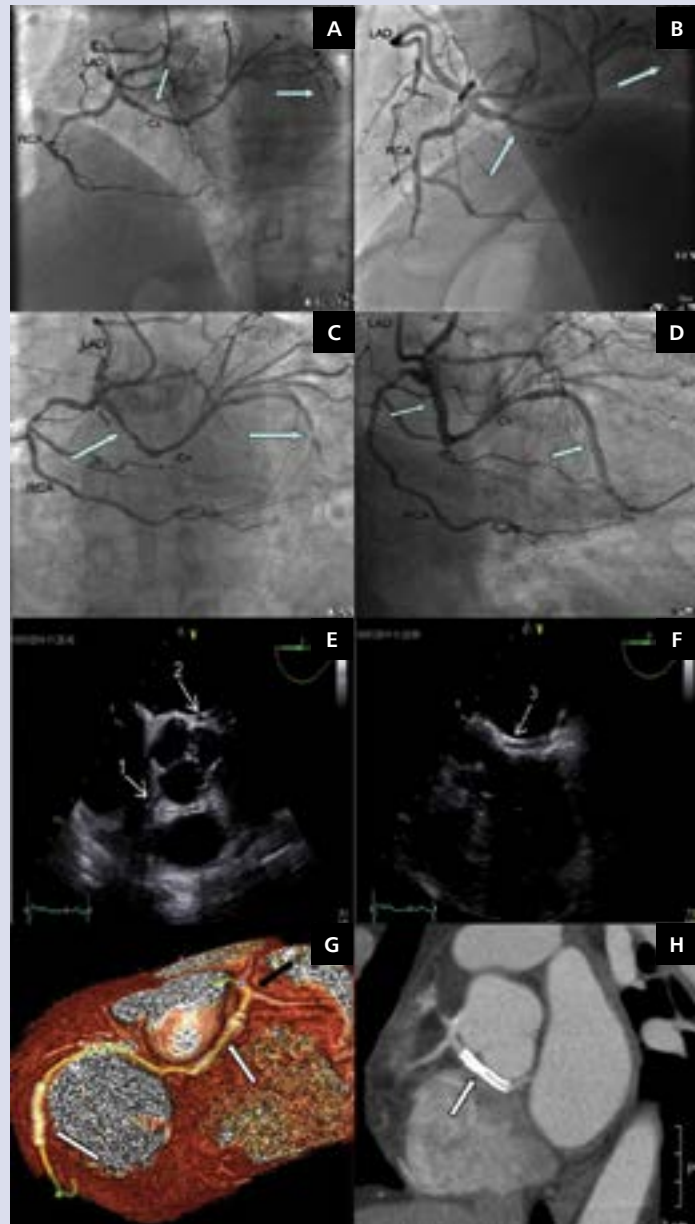
# Successful primary intervention in a single coronary artery

Skuteczna przezskórna interwencja wieńcowa w pojedynczej tętnicy wieńcowej

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A 61-year-old man, with no previous medical history, presented with an acute inferior ST-segment elevation myocardial infarction. Coronary angiography revealed all three coronary vessels branching from a single coronary artery (SCA) originating from the right aortic sinus (RAS): right coronary artery (RCA), circumflex artery (Cx), and left anterior descending artery (LAD) (Fig. 1A). The culprit lesion (99% narrowing) was located in the distal part of Cx (dCx) and concomitant significant stenosis in the proximal part of Cx (pCx) (Fig. 1B). Percutaneous coronary intervention (PCI) was conducted with implantation of two everolimus eluting stents (DES): into the dCx (2.75 × 20 mm) and into the pCx (3.5 × 24 mm). Angiography showed proper stent apposition with Thrombolysis In Myocardial Infarction III flow (Fig. 1C, D). Transthoracic echocardiogram showed reduced ejection fraction (40%) with hypokinesia of the basal and posterior wall, with concomitant hypokinesia of 1/2 apical anterior, lateral and interventricular septum. Transoesophageal echocardiogram confirmed the anomalous anatomy with all three coronary vessels originating from RAS with atypical retroaortic course of pCx (Fig. 1E, F). We conducted computed tomography angiography to better visualise the spatial relationships, which allowed visualisation of a SCA originating from RAS dividing into the double LAD, Cx, and RCA (Fig. 1G, H). Our patient had an extremely rare type of SCA anomaly and presented with significant atherosclerotic lesions causing ST-elevation acute myocardial infarction and concomitant stable plaque — to our knowledge this is one of the very few reports of primary PCI in such a setting.



**Figure 1.** A–D. Coronary angiography; E, F. Transthoracic and transoesophageal echocardiograms; 1, 2 — retroaortic course of circumflex artery (Cx); 3 — stent implanted in Cx; G, H. Computed tomography angiography: stents implanted in proximal and distal Cx

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**Conflict of interest:** none declared

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