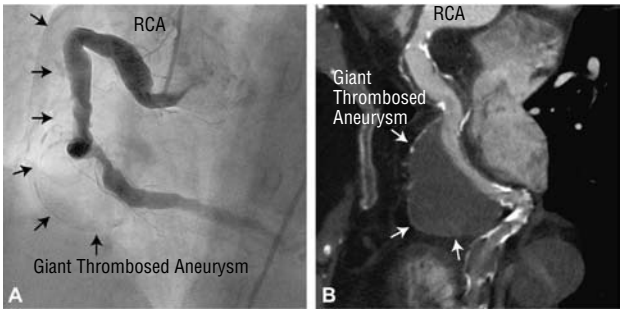

Figure 1.

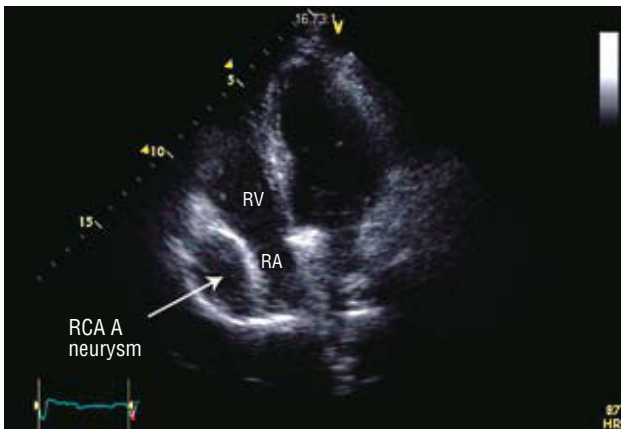

Figure 2.

RV: right ventricle; RA: right atrium; RCA: right coronary artery; VSG: vena saphena graft.

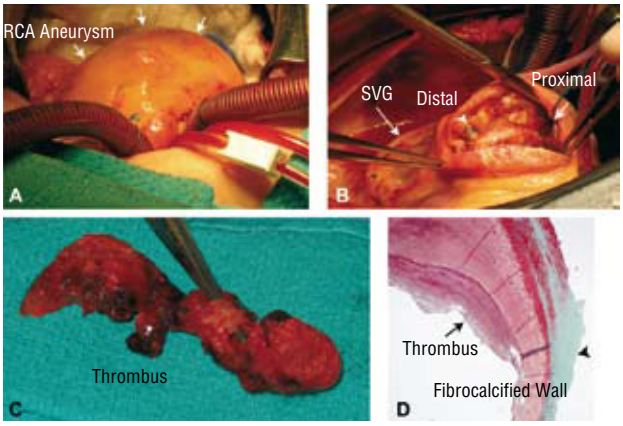

Figure 3.

Multimodal Imaging Study of a Thrombosed Right Coronary Artery Aneurysm

A 76-year-old woman with a history of high blood pressure and smoking underwent a coronary angiography for non-ST elevation myocardial infarction. Left coronary angiogram revealed severely ectatic and calcified coronary arteries associated with significant lesions of the left main, mid left anterior descending (LAD), and first obtuse marginal (OM) arteries. Projections of a dominant right coronary artery (RCA) revealed calcified linear borders without contrast agent filling suggestive of a thrombosed aneurysm (Figure 1). Pre-operative transthoracic echocardiography showed in the 4-chamber apical view a cystic-like mass (20×30 mm) adjacent to the right atrium suggesting a paracardiac mass (Figure 2). Further investigation with cardiac computed tomographic (CT) scan uncovered a giant RCA aneurysm with partially thrombosed lumen and severely calcified vessel wall (Figure 1B), confirming the findings evoked by the coronary angiogram (Figure 1A). Curvilinear reconstructions of the cardiac CT-scan permitted better appreciation of the RCA aneurysm which measured 60×33 mm. Ultimately, giant aneurysm of the RCA was confirmed during surgery (Figure 3A). After incision, significant thrombus was removed. Both proximal and distal ends of the aneurysm (Figure 3B) were ligated after bypassing the posterior descending artery. Two additional bypass grafts (LAD and OM) were performed and the postoperative course was uneventful. The macroscopic specimen removed from the RCA aneurysm, measuring ×2.5 mm, corresponded to a voluminous partially degenerated thrombus (Figure 3C). Histologically, the aneurysmal wall was completely remodelled by fibrosclerotic changes, calcifications and discrete chronic inflammatory infiltrates (Figure 3D). The present case is an interesting demonstration of the usefulness of multiple imaging modalities in the diagnosis and management of rare coronary anomalies.

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