Late paravalvular abscess 6 weeks after transfemoral aortic revervaling

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An 81-year-old man, known for valvular cardiomyopathy, was admitted to our emergency department for increasing haemodynamic instability, fever, and progressive asthenia 6 weeks after transfemoral aortic revervaling with Corevalve 29 mm complicated by large retroperitoneal haematoma requiring urgent surgery. Main findings were an extended anterior hypokinesia at the transthoracic echocardiogram with elevated troponin 20.47 ng/mL, calcitonin 0.94 ng/mL, and blood culture positive for Staphylococcus epidermidis sepsis. The cause for the unusual combination septic shock-myocardial infarction, as demonstrated by two-dimensional (2D) and three-dimensional (3D) transoesophageal echocardiogram (Panels A and B) and thoracic CT (Panel C), has been shown to be a giant paravalvular aortic abscess surrounding the valve prosthesis and infiltrating the left coronary orifice, therefore leading to a severe antero-lateral hypokinesia. Despite adequate pharmacological treatment, clinical conditions worsened dramatically, thus leading to the patient’s death within 48 h. The autopic examination confirmed purulent aortitis involving the ascending aorta and conditioning an obstruction of the left coronary ostium (Panel D) with acute myocardial infarction of the interventricular septum, lateral, posterior, and anterior left ventricular wall. Retrospectively Staphylococcius cocoides were isolated on skin swab and in superinfected abdominal haematoma.

(Panel A) Paravalvular abscess (dashed arrows) around Corevalve (arrows). (Panel B) 3D image: paravalvular abscess (blue arrows) surrounding Corevalve (white arrows). (Panel C) CT confirming paravalvular abscess (circle blue arrows). (Panel D) Left coronary ostium obstruction in autopic specimen. AA, ascending aorta; Ao, aorta; AoV, aortic valve plane; CorV, corevalve; LA, left atrium; LC, left coronary; LV, left ventricle; PV-Ab, paravalvalur abscess; RA, right atrium; RV, right ventricle; SP, side pocket.