From kidney stone to cardiogenic shock: a case of complicated endocarditis

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Introduction: Endocarditis is devastating disease with unpredictable clinical course, high morbidity and mortality.¹ We are whithnessing increase in incidence and severity of clinical picture due to co-morbidities and rising proportion of invasive and multiresistent pathogens.

Case report: 62-year-old male with diabetes, hypertension and known kidney stone was admitted due to urosepsis and pionephros. 12-lead ECG upon arrival revealed sinus tachycardia with heart rate dependent right bundle branch block. Besides septic inflammatory parameters, laboratory results showed significant rise in high-sensitive troponin. Patient had no chest pain, but relative left ventricle longitudinal strain reduction and moderate aortic stenosis were found. After initial stabilization and targeted antimicrobial therapy (E. faecium isolated from blood culture) patient was referred to angiography showing significant right coronary artery stenosis and 1 drug-eluting stent was successfully implanted. Afterwards renal abscess was percutaneously drained enabling postponement of nephrectomy for minimum duration of dual antiplatelet therapy. Operation was done but the patient remained subfebrile with elevated inflammatory parameters during urology follow-up despite persistent antimicrobial therapy. Finally, he returned with clinical picture of heart failure, hypotension and elevated hs troponin. Bedside echo raised suspicion of aortic valve vegetation with massive regurgitation and reduced left ventricle global systolic function. Transesophageal echocardiography confirmed aortic valve endocarditis with multiple large hypermobile vegetations and small aortic root abscess (Figures 1, 2 and 3). Cardiac surgeon initially opted for further antimicrobial therapy, but despite targeted intensive treatment (E. faecium from multiple blood cultures) after 3 days heart failure progressed to cardiogenic shock, and he was urgently operated. Operation confirmed echo findings and after debridement

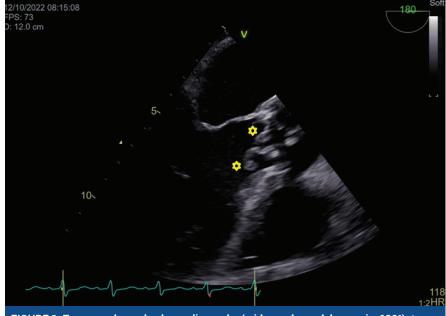


FIGURE 1. Transesophageal echocardiography (mid-esophageal, long axis, 180°): two large fresh hypermobile vegetations attached to aortic cusps.

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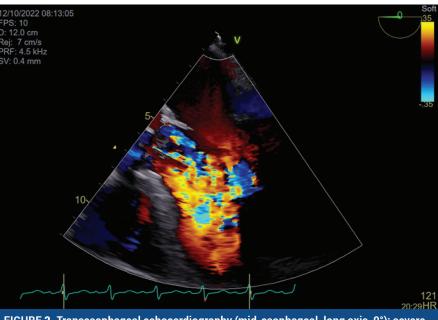


FIGURE 2. Transesophageal echocardiography (mid-esophageal, long axis, 0°): severe aortic regurgitation jet across the whole left ventricle.



mechanical valve was implanted. Afterwards there were multiple complications including complete heart block (dual-chamber, rate-modulated pacing was also implanted) but eventually after 45 days he was discharged from hospital in a good condition.

Conclusion: This case illustrates clinical doubts in managing patient with complex multiple acute pathologies. Close collaboration between all specialties is *condicio sine qua non* and echocardiography was key diagnostic tool in all steps of the management.

LITERATURE

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