Fever of unknown origin – neither endocarditis nor myocardial infarction

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Case report: 61-year-old woman presented to the Emergency Department with sudden onset of fever, shortness of breath, headache, arthralgia, upper-abdominal pain and generalised maculoerythematous rash. Laboratory testing showed pancytopenia, slightly elevated C-reactive protein, normal procalcitonin value and altered hepatogram with unconjugated hyperbilirubinemia. An abdominal ultrasound confirmed hepatosplenomegaly. Electrocardiographic findings were unspecific. Fever, heart murmur, elevated values of cardiac troponin and N-terminal pro b-type natriuretic peptide (NT-proBNP) raised clinical suspicion of endocarditis. Transthoracic echocardiography found thickening and potential vegetation on the aortic valve. Besides that, there were signs of hypertensive heart disease with preserved left ventricle ejection fraction, no wall motion abnormalities, normal right ventricular size and function and insignificant valve dysfunction. Transesophageal echocardiography showed round, well-circumscribed, wide-based, hyperechogenic structure on noncoronary cusp (**Figure 1**). Multiple blood cultures were negative. Since Duke criteria were not met, more plausible diagnoses of Arantius nodule or fibroelastoma were considered. High sensitive troponin I (Hs-TnI) values were persistently elevated without dynamic changes or clinical correlation. In the setting of acute (especially viral) infection, heterophile antibodies can cause interference and positive or negative results. Different immunoassay in another laboratory showed normal Hs-TnI, thus confirming false-positive results. Extensive workup did not confirm infective pathogen but nevertheless patient has recovered completely.

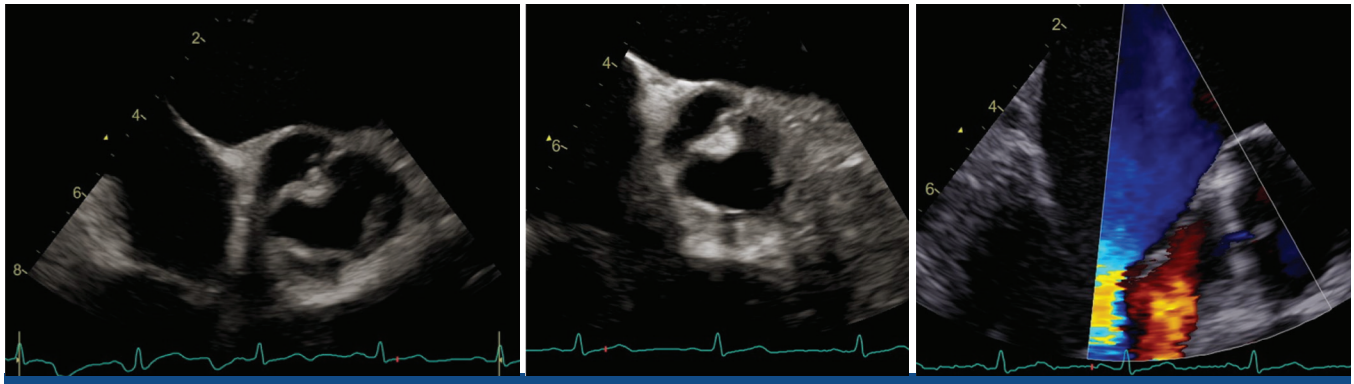

FIGURE 1. Transesophageal echocardiogram images: thickening on the aortic valve (A); round, well-circumscribed, wide-based, hyperechogenic structure on noncoronary cusp (B); trace aortic regurgitation (C).

Conclusion: Clinical history and physical examination are crucial since laboratory and imaging results can be misleading. Guideline based approach for the diagnosis of myocardial infarction and endocarditis helps to avoid false positive diagnosis[1-3].

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