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Infective endocarditis of a bicuspid aortic valve complicated by ventricular septal defect

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Image in medicine

We report the case of a 36 years-old male, who was admitted to the cardiology department for prolonged fever, dyspnea and asthenia. Clinical examination found a febrile patient (39.2°C) with diffuse purpuric spots and a 4/6 diastolic murmur in the aortic area. Blood tests revealed high C-reactive protein level (236 mg/L) and procalcitonin (4.6 mg/L), in addition to hyperneutrophilia (18000/mm^3), Anemia of Inflammation (Hb= 7.1 g/dL) and thrombopenia (98000/mm^3). Renal function was altered (GFR Glomerular filtration rate (MDRD) = 37 mL/min), Urine tests found high proteinuria (3g/24h) and hematuria. Transthoracic Echocardiography (TEE) was performed and showed thickened aortic valves with two large

vegetations on the ventricular side of the aortic cuspis measuring 22x16mm and 12x17mm respectively, associated to a severe acute aortic regurgitation and a suspected Sievers type 1 Bicuspid Aortic Valve (BAV). Moreover, a restrictive Ventricular Septal Defect (VSD) of 5mm was found, in addition to an important tricuspid insufficiency and a transvalvular gradient estimated to 57 mmHg. Repeated Blood cultures were sterile, thus, empirical antibiotherapy including Vancomycin and Gentamicin was initiated and the patient underwent surgery with Aortic valve replacement and tricuspid annuloplasty. The Sievers I/LR BAV was confirmed in peroperative findings. Post-operative period was marked with a favorable evolution with apyrexia, inflammation markers normalization and no residual vegetation in the post-operative transthoracic echocardiography. The patient was discharged from hospital as he was asymptomatic and was regularly followed-up.

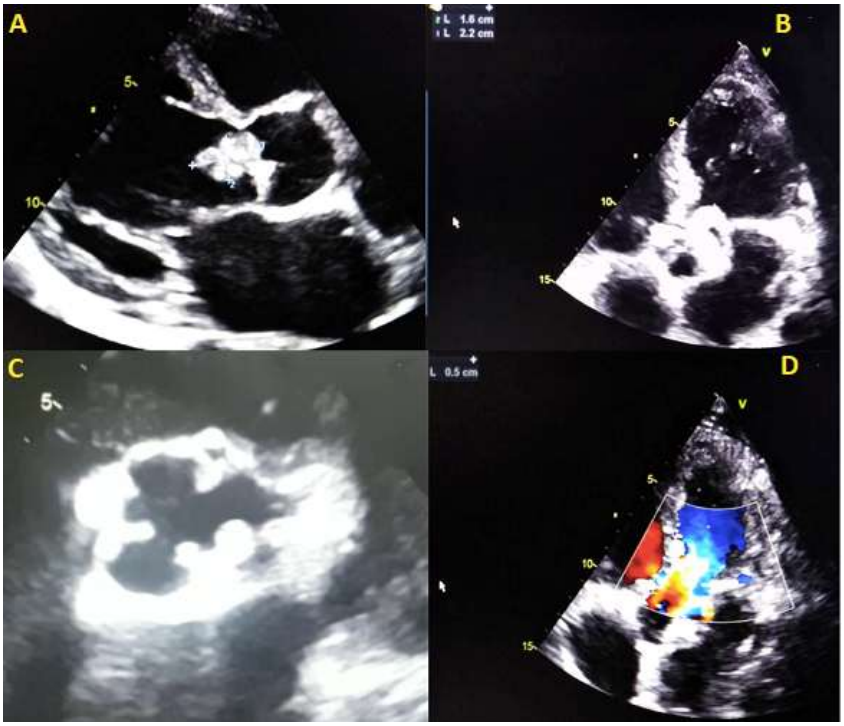

Figure 1: transthoracic echocardiography showing (A) a large aortic valve vegetation in parasternal long axis view (B) with one of the vegetations measuring 16x22mm in five chambers apical view (C) and a suspected Type I Sievers bicuspid aortic valve in parasternal short axis view (D) associated with a 5mm restrictive septal defect and a severe aortic regurgitation