CASE REPORT

Isolated Pulmonary Valve Endocarditis

Sanjeev Kapoor, Sourabh Verma, Govind Sharma, Mohan Lal, C. D. Gupta

Abstract

Right sided heart involvement in infective endocarditis in non drug addicts is rare. We report a case of isolated pulmonary valve endocarditis in a non drug addict male. Key Words

Infection, Endocarditis, Plumnary regurgitation

Introduction

Right sided endocarditis is mainly a disease of intravenous drug abusers. It can also occur in nondrug addicts (1). The incidence of right sided infective endocarditis ranges from 5-10% in different series (2,3). The literature from 1960 to 1999 identified only 36 reported cases of pulmonic valve endocarditis in structurally normal hearts (4). The present report underscores the importance of suspecting pulmonic valve endocarditis. We report a case of isolated pulmonary valve endocarditis in a young nonaddicted patient who was admitted in Govt. Medical College, Jammu

Case Report

A 32 year old patient was admitted with history of persistent pyrexia & exertional dyspnoea for last 20 days. The fever was continous, more in the evening hours and often associated with chills and rigors. Dyspnoea was grade 2-3 and progressively increasing. Patient had history of pulmonary tuberculosis one year back and took ATT for 9 months. The patient initially reported in Chest Diseases Hospital-Jammu and on finding a cardiac lesion was referred to the cardiology section of our hospital. On examination patient was febrile, anaemic and toxic. Clubbing was present in both the upper limbs and JVP was raised. Patient also had bilateral cataract since childhood and was operated on the right side in the hospital 10 years back. Cardiovascular system examination revealed normal S1 & S2, ejection systolic murmur (3/6) at pulmonary area and short early diastolic murmur in 3rd intercostal space on left parasternal region. Examination of chest, abdomen and nervous system was normal. Chest x-ray showed mild cardiomegaly with prominent pulmonary conus. EKG revealed RBBB with mild clockwise rotation of heart. Echocardiography showed mild dilatation of right atria with thickened mitral ,tricuspid and aortic valve. Pulmonary valve was thickened, deformed & had pedunculated large vegetation (Fig. 1&2) along with moderate regurgitation (Fig. 3). Left ventricular (LV) function was good with ejection fraction about 65%. There was no clot or pericardial effusion. Successive blood culture done three times could not demonstrate any organism. Patient was put on high dose antibiotics (emperically) and his condition improved. He has remained asymptomatic till the last followup.



Fig. 1. M mode & 2 D recording of pulmonary vegetation

From the Cardiology Unit of Postgraduate Department of Medicine, Government Medical College, Jammu (J&K). Correspondece to: Dr. C. D. Gupta, Professor & Head, Cardiology Unit, Govt. Medical College, Jammu (J&K).

Vol. 7 No. 2, April-June 2005



Fig. 2 Short axis view showing pulmonary valve & vegetation in realtion to aorta and left atrium.



Fig. 3 Doppler study of pulmonary valve showing pulmonary regurgitation.

Discussion

Right sided infective endocarditis in non drug addicts is a severe disease with high mortality rate and should be suspected in patients with pulmonary embolism and signs of infective endocarditis (5). Permanent pacemakers and central intravenous catheters have been generally implicated in the development of right sided infective endocarditis (6-8). Abortions and deliveries are frequently reported as a cause of right sided infective endocarditis is underdeveloped countries (9). In a retrosceptive analysis of 466 patients diagnosed as infective endocarditis over a span of 15 yrs in SKIMS,Srinagar it was found that right sided endocarditis was found in only 4 cases (10). Isolated native nonrheumatic pulmonary valve endocarditis is rarely described in the absence of intravenous drug abuse,intracardiac catheters or cardiac anomalies. Though the treatment of choice for the patient would have been surgical removal of the valve with vegetation but keeping in view the low socioeconomic condition of the patient he was managed conservatively He was advised to undergo consultation for prophylaxis of endocarditis before any surgical intervention.

References

- 1. Hecht SR, Berger M. Right sided endocarditis in intravenous drug users. Ann Int Medicine 1992; 117: 560-66.
- Delahaye F, Goulet V, Lacassin F et al. Incidence, caractéristiques demographiques, cliniques, microbiologiques, et évolutives de l'endocardité infectieuse en France. Méd Mal Infect 1992; 22: 975–86.
- Van der Meer JTM ,Thompson J,Valkenburg HA, Michel MF. Epidemiology of bacterial endocarditis in the Netherlands. Patient characterstics. Arch Intern Med 1992; 152: 1863-68.
- Ramadan FB, Beanlands DS, Burwash IG. Isolated pulmonic valve endocarditis in healthy hearts: a case report and review of literature. Med Sci Monit 2002; 8(4): 39-41.
- Lejko-Zupanc, Kozelj M, Kranjec I,Pikelj F. Right sided endocarditis: clinical and echocardiographic characterstics. J Clin Basic Cardiol 1999; 2: 81
- Naidoo D P. Right sided endocarditis in non drug addicts. Post-grad Med J 1993; 69: 615-20
- Morgan G, Ginks W, Sidons H, Leatham A. Septicemia in patients with an endocardial pacemaker. Am J Cardiol 1979; 44: 221-24.
- Camus C, Leport C, Raffi F, Michelet C, Cartier F. Sustained bacteremia in 26 patients with permanent endocardial pacemaker assessment of wire removal. CID 1993; 17: 46-55.
- Martino P, Micozzi A, Venditti M et al. Catheter-related rightsided endocarditis in bone marrow transplant recipients. Rev Infect Dis 1990; 12: 250–57.
- Jalal S, Khan KA, Alai MS et al. Clinical spestrum of infective endocarditis: 15 years experience. Ind Heart J 1998; 50(5): 516-19.

Vol. 7 No. 2, April-June 2005