International Journal Dental and Medical Sciences Research
Volume 3, Issue 5, pp: 1497-1499www.ijdmsrjournal.com ISSN: 2582-6018

Isolated Aortic Valve Endocarditis Related To Intravenous Drug User

Dr. Saurabh Puri[1], Dr. Ashish Gupta[2], Dr. Vikrant Panwar[3]

[1]MBBS, 3rd Year DNB Resident, Department of Internal Medicine, Max Super Specialty Hospital, Vaishali, Uttar Pradesh
[2]MBBS, DNB Medicine, Department of Internal Medicine, Max Super Specialty, Vaishali, Uttar Pradesh
[3]MBBS, MD Pharmacology, DNB Medicine, Department of Internal Medicine, Max Super Specialty Hospital, Vaishali, Uttar Pradesh

Date of Submission: 18-11-2021 Date of Acceptance: 01-12-2021

ABSTRACT:
Incidence of infective endocarditis (IE) in intravenous drug use (IVDU) has risen over the past few decades. Usually right sided valves have been thought to get affected. However, we came across a patient of isolated aortic valve endocarditis in a intravenous drug user and wanted to report the case.

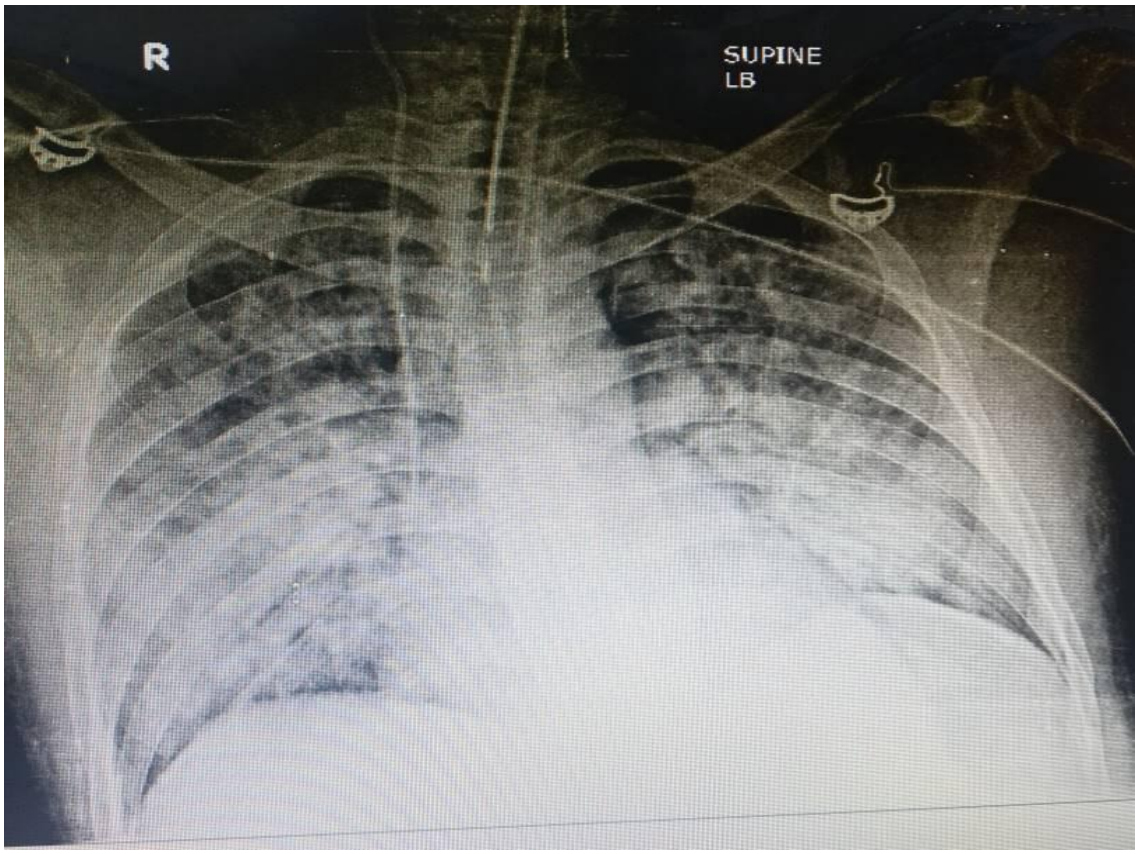
I. INTRODUCTION:

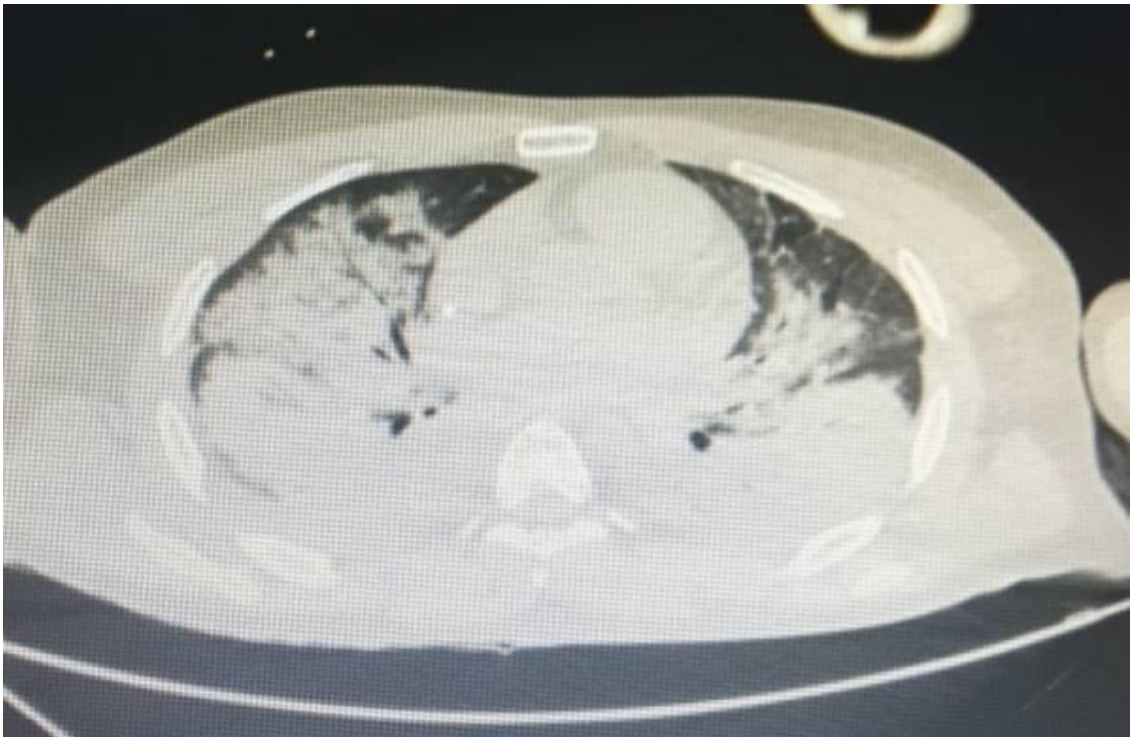
Infective endocarditis leads to tissue destruction and formation of vegetation due to microbial infection of heart valve (native or prosthetic) or the mural endocardium. The incidence of infective endocarditis is more in females compared to male (1:2) with 1.7-7.2 cases/one lakh-year. Most common causative organism is Staphylococcus aureus and a well-known risk factor is intravenous drug use.

II. CASE REPORT:

A 32 year old male, Known iv drug abuser(pheniremine maleate) , Came from another hospital at around 2:24 PM, Admitted there with complaints of high grade fever, Cough with expectoration from last 5 days, along with Shortness of Breath and Chest pain from last 1 day. Patient was received in ER in with Severe Respiratory Distress, State of Shock (BP-70 systolic) and altered sensorium.On Examination- Pulse- 133/min, SPO2- 80% with 15 litre O2, BP – 70 systolic, Resp. rate- 34/min withmultiple healed needle puncture wounds over Bilateral cubital fossa. On systemic examination, B/L extensive crepitations heard all over lung field, he was agitated and restless, no localizing sign present,S1, S2 heard , no murmur was appreciated. He was Intubated, put on Ventilatory supportand Inotropic support was started (NorAd- 15ml/hr), CVP line insertion and Foley's catheterization done along with IV fluids, IV steroids, IV Antibiotics (InjMeropenem&InjTeicoplanin), IV Antimalarial(Inj. ,Artesunate) andAntiviral (Oseltamivir)were given. Complete blood count were done which revealed Hb 12.3 g/dl, total leucocyte count 19.49, with neutrophils 89% and marked thrombocytopenia (40). Renal function test revealed acute kidney injury (serum urea 61, serum creatinine 1.9 mg/dl). Liver function test revealed raised liver enzymes (SGOT 65, SGPT 56). Workup for fever was done and typhidot, peripheral smear for malaria parasite, malaria antigen, dengue NS1, dengue serology were sent which were negative. Viral markers (HbsAG, HIV) were sent which were negative, but HCV was reactive. D-dimer and FDP were sent which were elevated (6674 and >20 respectively). 2 D-ECHO was done which revealed Mobile echogenic mass seen on Aortic valve- likely vegetation,Mild MR, Mild TR, Mild AR, No RWMA , EF-50%,Grade 1 LVDD, RVSP-40mmHg, No LA/LV clot/ PE seen. He wasadmitted in Internal Medicine and Neurology with a provisional diagnosis ofSevere Sepsis with shock with MODS – Altered sensorium, acute respiratory distress syndrome, acute kidney injury, Infective Endocarditis.Urgent Cardiology and Pulmonology opinion were asked. Patient was shifted for CT scan around 6 PM where he had cardiac arrest post CT in CT Room, CPR done according to ACLS protocol, however he could not be revived and declared dead. Paired blood culture was sent which revealed growth of Methicillin resistant Staphylococcus aureus(MRSA). Final diagnosis was Infective Endocarditis- Aortic Valve vegetation(Blood C/S-MRSA + ve, known IV drug Abuser) with ? Cardiogenic Pulmonary edema with septic shock with MODS(AKI, Respiratory Failure, Altered Sensorium, DIC) with HCV + ve status.

International Journal Dental and Medical Sciences Research
Volume 3, Issue 5, pp: 1497-1499www.ijdmsrjournal.com ISSN: 2582-6018





International Journal Dental and Medical Sciences Research
Volume 3, Issue 5, pp: 1497-1499www.ijdmsrjournal.com ISSN: 2582-6018

III. DISCUSSION :

Infective endocarditis initialy recognized to be a complication of injection drug use in 1950s.[1]In one study, IDU associated IE was found to be common in younger population and females compared with other causes.[2] Most common cause of infective endocarditis among intravenous drug users is Staphylococcus aureus, which involves more than half of the cases.[3]Along with that, community associated methicillin-resistant Staphylococcus aureus(MRSA) were first observed in intravenous drug users. Streptococci, Enterococci, Gram negative bacilli were the other organisms involved.[4]In the general population as a whole, right-sided endocarditis is less common than left-sided endocarditis.Most cases of right-sided IE occur among IDUs, and many series note that most IDUs with IE have right-sided infection.[5]However, in one series of 67 IDUs, left-sided IE was more common than right sided IE (57 versus 40 percent).Left-sided involvement is associated with worse prognosis than right-sided involvement.[6]

REFERENCE :

[1]. HUSSEY HH, KATZ S. Infections resulting from narcotic addiction; report of 102 cases. Am J Med 1950;9:186.
[2]. Schranz AJ, Fleischauer A, Chu VH, et al. Trends in Drug Use-Associated Infective Endocarditis and Heart Valve Surgery, 2007 to 2017: A Study of Statewide Discharge Data. Ann Intern Med 2018.
[3]. Mathew J, Addai T, Anand A, et al. Clinical features, site of involvement, bacteriologic findings, and outcome of infective endocarditis in intravenous drug users. Arch Intern Med 1995; 155:1641.
[4]. Levine DP, Crane LR, Zervos MJ. Bacteremia in narcotic addicts at the Detroit Medical Center. II. Infectious endocarditis: a prospective comparative study. Rev Infect Dis 1986; 8:374.
[5]. Ortiz-Bautista C, López J, García-Granja PE, et al. Current profile of infective endocarditis in intravenous drug users: The prognostic relevance of the valves involved. Int J Cardiol 2015; 187:472.
[6]. Graves MK, Soto L. Left-sided endocarditis in parenteral drug abusers: recent experience at a large community hospital. South Med J 1992; 85:378.