

CASE REPORT**AN UNUSUAL PRESENTATION OF INFECTIVE ENDOCARDITIS****Layla Abdullah, Saleema Allana**

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This paper reports a case of a 22 years old young male who presented in emergency department with some non-specific symptoms such as abdominal pain, vomiting, chest heaviness and shortness of breath. Chest x-ray revealed a combined picture of pneumonia and congestive heart failure. Echocardiogram showed ventricular septal defect, aortic regurgitation and mitral stenosis. Later on diagnosed with infective endocarditis and the culprit was his native valves. He went through aortic valve replacement and discharged after full recovery.

Keywords: Infective endocarditis, unusual presentation, valve replacement

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INTRODUCTION

Despite enormous medical and surgical advancement, Infective Endocarditis (IE) still carries poor prognosis and high mortality rate.¹ The incidence of IE is 10/100,000 persons per year in developed countries.² Approximately 15,000 new cases of IE are diagnosed each year in the United States.^{3,4} This rise in trend is due to increasing antimicrobial resistance, increasing heart surgeries, prosthetic valve implantation, and widespread use of intravenous drugs. IE is more common in men than women.⁴ The majority of cases occur in those with predisposing identifiable, cardiac structural abnormalities (congenital or acquired), or the ones with intravenous drug use, poor oral and dental hygiene, damaged heart valves and compromised immune system. IE most commonly involves the mitral valve only (approximately 40% of the patients), followed by the aortic valve only (36% of the patients) and multivalvular disease.

CASE REPORT

A 22 years old young male came to the emergency department, with shortness of breath and chest heaviness since 20 days, and abdominal pain and vomiting since a week. All these symptoms worsened after which patient presented to the hospital. Assessment in ER revealed tachycardia with pulse 109/min, tachypnea with respiratory rate 31/min. Chest x-ray showed bilateral alveolar combination of congestive heart failure and pneumonia. On auscultation, S1 S2 was audible and Pan systolic murmurs; heaves and thrills were also inspected and palpated respectively. Echocardiogram showed perimembranous ventricular septal defect, aortic regurgitation with vegetation and mitral stenosis. A firm diagnosis of infective endocarditis was made and patient was treated accordingly. Patient was urgently planned for aortic valve replacement and he went through surgical treatment.

DISCUSSION

Infective endocarditis is a rare disease that, if left untreated, leads to serious morbidity and mortality. IE is a condition which involves microbial invasion of the endocardial surface of the heart.⁴ IE often represents with specific and non-specific manifestations. The major clinical features of IE include Osler's nodes, Janeway's lesion, Roth spot and clubbing of nails. Other features could be fever, arthralgia and myalgias, murmurs, splenomegaly, Petechiae and neurological manifestations which are usually non-specific. IE is highly known to present with many different ways.³ Neurological manifestations are seen in 20-40% patient with IE; it is usually because of embolic stroke, transient ischemic attack (TIA), purulent or aseptic meningitis, intracranial haemorrhage, headache, seizures or encephalopathy.⁴ There are three obvious CNS manifestations seen in patients with IE: (a) infectious diseases such as bacterial meningitis and abscess (b) non-specific manifestations such as encephalopathy, seizures and headache (c) cerebrovascular diseases such as cerebro-vascular accidents and mycotic aneurysms.⁵ Cerebro-vascular complications of IE are common and ischemic stroke is the most common neurological feature with which patients present. Non-specific symptoms of IE are more common than specific clinical features.

The pathogenesis of IE starts with vegetation formation which is a multi-step process. The line of closures on valvular surface is the most common site of injury.⁴ This endothelial injury stimulates the sterile thrombus formation which occurs by deposition of fibrins and platelets. Once a sterile thrombus is present, transient bacteraemia can seed the thrombus. Bacteria have different adhesive capacities based on bacterial surface characteristics and virulence factors, called adhesions.⁴

CONCLUSION

Infective Endocarditis presents with several different clinical manifestations; literature has demonstrated that neurological symptoms are frequently reported as non-specific presentation of IE. However, this case study has reported an unusual presentation of IE with gastrointestinal (GI) symptoms like abdominal pain and vomiting. Further case studies should be reported for the IE cases that may have presented with GI symptoms, so as to validate the current case study.

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