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Original Research Paper

General Medicine

A CASE REPORT OF CITROBACTER KOSERI ENDOCARDITIS

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ABSTRACT The present case report describes the clinical course of a patient ,who presented with citrobacter koseri endocarditis (subacute)with background chronic rheumatic heart disease. Which was initially treated medically , followed by elective double valve replacement. Perioperatively he developed complete heart block which was managed by permanent pacemaker implantation successfully.

KEYWORDS :

INTRODUCTION:

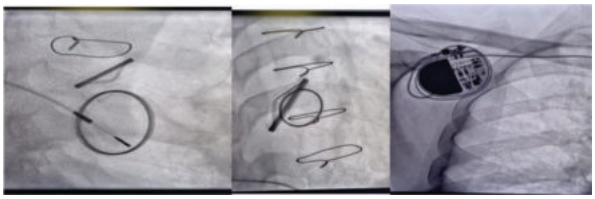
Citrobacter members are motile ,facultative anaerobes,gram negative bacillus. They belong to the enterobacteriaceae family. First discovered in 1932 by werkman and Gillen. Utilise citrate , grow in KCN medium , produce H2S. They exhibit extensive antigenic variations with salmonella. Are the members of intestinal inhabitants,Relatively avirulent. Among the citrobacter genus, C koseri and C freundi are frequently isolated. It may cause infections of the urinary tract, endocardium, meninges and bloodstream.[5]

Case Presentation:

A 34 year old male with no comorbidities and no significant past history presented with complaints of weight loss up to 10 to12 kgs since 6months, low grade fever for 4 months, shortness of breath grade 3 since two months, anorexia , and generalised body pains He was investigated and found to have chronic rheumatic heart disease with mixed mitral valve lesion and eccentric aortic regurgitation. Transthoracic echo was done which showed vegetation on both mitral and aortic leaflets with severe eccentric AR and severe LV dysfunction (LVEF=30%) Routine lab investigation shows Hb: 12.7gm/dl, total leukocytes counts of 17000cells/mm ESR: 60mm, CRP: 40mg/l.Complete urine examination showed microscopic hematuria.Culture was sent , gram negative bacillus was isolated on Triple sugar agar and found to have citrobacter koseri.

Treatment:

Patient was treated with IV antibiotics AMPICILLIN +GENTAMYCIN for 4 weeks along with anti failure treatment. After symptoms subsided, attenders were counselled and double valve replacement was done. Perioperatively patient developed complete heart block for which single chamber MRI compatible permanent pacemaker implantation was done.



Fig(a) Fig(b) Fig(C)

Fig(a) and (b) : Double valve replacement Fig(c) : permanent pacemaker implantation

Outcome And Follow Up:

Patient has regular follow up and showed complete recovery on anticoagulant and weight gain of 15kgs

DISCUSSION:

Citrobacter is an infrequent cause of endocarditis. They are found in a variety of environment sources, including soil,water,and human intestines often found in feces. Resistance like TEM – and SHV -type extended spectrum beta lactamases is seen [3] in citrobacter species and is considered to be an opportunistic infection. Commonly noted in neonates, elderly and immuno compromised individuals[4]. Clinically citrobacter endocarditis presents similar to other causes of endocarditis but, follows a more prolonged course. However native valve endocarditis due to these organisms is extremely rare.

CONCLUSION:

- Citrobacter endocarditis is rare cause of infective endocarditis [1] [2] .
- Present case of a 34Y/M immunocompetent adult diagnosed as citrobacter endocarditis with chronic rheumatic heart disease as a risk factor
- In our case It followed a prolonged indolent chronic course with clinical features of significant Weight loss of 12 to 15 kgs for 6 months and low grade fever lasting for 4 months with no apparent embolic events .
- He underwent double valve replacement and perio peratively complicated by complete heart block, which was managed by Permanent pacemaker

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