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Septic arthritis due to Beta Haemolytic Streptococci in a Type 2 diabetic mellitus patient – Case Report

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Abstract

Streptococcus pyogenes, a β – haemolytic bacteria is also known as Group – A Streptococci (GAS) is known to cause a wide variety of diseases in humans including suppurative and non – suppurative infections. Here we report a case of Septic Arthritis in a 53 years old Diabetic person who complained of pain and immobility in his left knee. Investigation revealed the involvement of Group A Streptococcus as the causative agent of Septic arthritis and the patient drastically improved upon treatment.

Keywords: Group A Streptococci (GAS), Diabetic Mellitus, Septic Arthritis

1. Introduction

Streptococcus pyogenes, a β – haemolytic bacteria is also known as Group – A Streptococci (GAS) is known to cause a wide variety of diseases in humans including suppurative and non – suppurative infections. The most important characteristics of Group A Streptococci is its ability to spread in the infected tissues unlike staphylococcus which cause typically localized infections [1]. At times infection of minor abarations with group A Streptococci mainly to fatal septicaemia [2].

2. Case Report

We report a case of a 53 yrs old Male patient who is a k/c/o Type 2 Diabetes Mellitus presented with the complaints of pain and immobility of his left knee joint [figure.1], which was swollen up for 3 weeks duration. During the course of his stay he complained of pain over the left side of chest radiating to the left shoulders, patient had history of fever for 4 days intermittent in type low grade. On examination the patient was drowsy, but aurosalbe, he had signs of icterus.

In the view of the Intermittent Fever associated with left sided chest pain, patient was admitted and further investigated. Blood Biochemistry revealed random blood sugar 254 mg/dl urea 48 mg/dl, creatinine 1.4 mg/dl. Haematological investigation revealed haemoglobin level of 12.4 g/dl. Electrocardiogram was within normal limits.

Patient was referred to orthopaedic department and was diagnosed as a case of septic arthritis [3], knee aspirate was sent to the Department of Microbiology for aerobic and anaerobic culture and Gram stain. Gram stain showed plenty of Gram positive cocci in chain and pairs (1 μ) and plenty of pus cells. Culture was done on blood agar was incubated at 37 °C in ambient air and chocolate agar at 37 °C under 5 – 10 % CO₂. Culture showed the growth of Beta Haemolytic colonies on blood agar after 24 hours of incubation [Figure.2]. The isolate was identified by Bacitracin sensitivity and Mini API kit as Streptococcus pyogenes. Since the patient was disoriented and drowsy arthrocentesis procedure was done. The antibiogram pattern of the isolate showed sensitivity to penicillin, ampicillin, erythromycin and resistant to cefotaxime, ceftazidime, gentamycin.

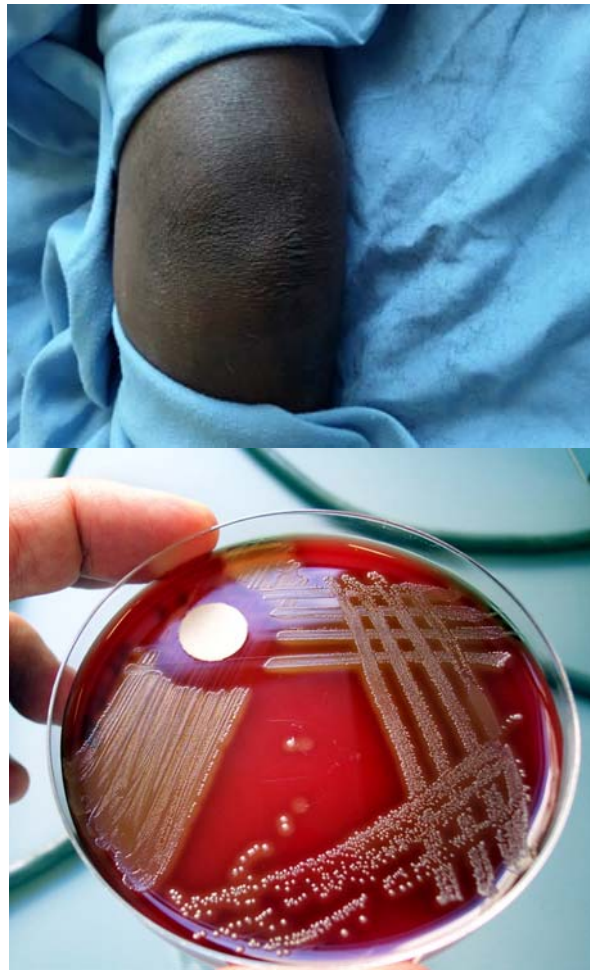
Upon receiving the culture and sensitivity report amoxy – clav 1.2 gm b.d was started and the general condition, consciousness level of the patient improved drastically within 12hours of treatment. The patient was discharged with Levofloxacin 250 mg twice a day for one week with suggestion of regular follow up.

3. Outcome

Detection of gram positive cocci with bacitracin sensitivity and beta haemolysis is of significant importance for the identification of Streptococcus pyogenes as a causative agent of septic arthritis especially under immunosuppressed conditions like that of type 2 diabetes

mellitus. [4] The present case study reporting the association of *Streptococcus pyogenes* in septic arthritis in a type 2 diabetes mellitus patient warrants a closer approach for

rapid diagnosis, appropriate treatment and effective management of such cases.



4. Follow – up

Upon follow – up after a two weeks the patients general conditions and the vital parameters were normal. Patient was mobilized, without any stiffness of the joints and discomfort while walking. Patient was advised to review for further follow up after a month with supportive treatment.

5. Reference

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