WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.084
Volume 10, Issue 4, 1200-1203. Case Study ISSN 2277– 7105

A CASE REPORT ON CELLULITIS WITH PERIPHERAL VASCULAR DISEASE (PVD)

P. Manasa*, J. Sudharshan, G. Balaji, B. Padmavathi and M. Suma Pravallika

Pharm D, Santhiram College of Pharmacy Nandyal, Kurnool District, AP, India.

Article Received on
14 Jan. 2021,

Revised on 03 Feb. 2021,
Accepted on 07 March 2021

DOI: 10.20959/wjpr20213-20048

***Corresponding Author**
P. Manasa
Pharm D, Santhiram College of Pharmacy Nandyal,
Kurnool District, AP, India.

ABSTRACT

Cellulitis is one of the reason for admission of patient in hospital due to the multiresistant organisms. The bacteria responsible for causing peripheral vascular disease are periodontal bacteria, gut micro biota, helicobacter pylori. These agents also responsible for forming atherosclerotic plaques and which trigger immune system and damage of vascular wall. Due to some external factors, bacteria like streptococci, staphylococci trigger the infection and leads to inflammation. Reoccurrence, non surgical trauma, cuts, wounds are associated to cause cellulitis. In this case patient is presented with swelling and discharge from left knee. The diagnosis of the patient is mainly based on clinical features and local examination. This condition of patient is treated with IV antibiotics, oral hypoglycemic agents,insulin and oral analgesics.

KEYWORDS: cellulitis, Infection, lymphoedema, Inflammation, Pseudomonas.

INTRODUCTION

Cellulitis is type of acute skin infection that primarily starts as inflammation of dermis and subcutaneous tissue. Cellulitis can be seen anywhere on the body, mostly in lower limbs near ankles as it mainly spread through lymph nodes and blood flow.[1] It may be caused due to trauma, wounds, cut on skin surface where the bacteria like streptococci, staphylococci, pseudomonas enters into the body and causes the infection. People with peripheral vascular disease are more prone to cellulitis due to narrowing of blood vessels and there is decreased blood flow to limbs.[2] People with lymphodema, venous insuffiency, diabetes mellitus and obesity are at high risk of cellulitis.[3] People with severe infection should be initially treated with broad spectrum antimicrobials which acts against gram negative bacteria such as clindamycin or linezolid.[4,5] Patients treated with IV antibiotics for 5-7 day and the treatment

may be extended to 14 days in immune compromised patients.[6,7,8] People with known history or risk factors can be treated with agents active against methicillin resistant streptococcus aureaus(MRSA). Patients with recurrent cellulitis should be treated with prophylactic antimicrobial therapy as long as factors persevere.[9] Patients with leg eczema and sole irregularities can be treated with appropriate topical treatment and leg edema, lymphoedema appears to be harmless before onset of cellulitis and can be treated with diuretics and compression therapy.[10,11]

CASE REPORT

A 62 year old male patient was admitted in general surgery department on 15 december 2016 with swelling of left knee and fever since 12 days and also there is discharge from that site. Patient has the history of Type2 Diabetes mellitus, Hypertension and trauma. He is on treatment for DM and HTN. The patient is alcoholic and smoker. The objective evidence includes Hb (8.2gm/dl), RBC (122mg/dl), HbgAc (10.2%) At present the patient was diagnosed as Cellulitis with PVD by the clinical features and there is a necrotic patch, edema and local rise in temperature over the posterior aspect of left knee. The patient is treated started with intravenous antibiotic, insulin treatment, oral hypoglycemic agent and oral analgesics. Based on the severity of infection the treatment is necessary upto 14 days.[12]

DISCUSSION

Cellulitis is a bacterial infection that occurs underneath the skin when bacteria successfully invade the soft tissue through abrasion on the skin like ulceration, athlete foot etc.[13] Normally the skin acts as barrier and prevents the bacterial entry but in patients at high risk the invaded bacteria multiply successfully and cause an infection that results in continuous inflammatory response from immune system leads to cellulitis. The most common causes of cellultis include wounds, trauma, skin cuts or breaks, the most common bacteria causing cellulitis streptococci, staphylococci, gram negative bacteria.[14] The clinical features includes redness, swelling, severe pain, local rise in temperature. Cellulitis can be diagnosed based on symptoms, local examination and culture sensitivity tests. By this tests is collected by needle aspiration and organism can be identified and suitable antibiotic is prescribed.[15,16] Chronic diabetes lead to formation of atherosclerotic plaques this results in narrowing of blood vessels, decreased blood flow to the limbs results in peripheral vascular disease. The PVD patients are at high risk of cellulitis. Patient should managed with antibiotics, analgesics, antidiabetic medication. At initial stages of swelling the patient can be managed with

compression therapy. The supportive care includes avoid walking on bare foot and the affected area should be dry and the exudates should be cleaned with absorbent dressing. Apply liquid paraffin or soft paraffin to maintain skin integrity. Elevate the foot to decrease oedema condition.

CONCLUSION

In this case study, it was proved that safety and efficacy of Antibiotics. The person with PVD and due to trauma resulted in bacterial infection and inflammation leading to cellulitis. By this therapy the patient condition get normalized and discharged.

ACKNOWLEDGEMENT

Authors want to thank the dean, teaching and non-teaching staff/faculty of the Santhiram medical college & hospital for their support to our observational studies. Also we thank Santhiram college of Pharmacy for providing the hospital facility & Speciality features.

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