

# WORLD JOURNAL OF PHARMACEUTICAL RESEARCH

SJIF Impact Factor 8.453

Volume 13, Issue 9, 1264-1268.

Case Study

ISSN 2277-7105

## A CASE REPORT ON PSORIASIS RELATED CELLULITIS IN A **DIABETIC PATIENT**

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Article Received on 10 March 2024,

Revised on 31 March 2024, Accepted on 21 April 2024

DOI: 10.20959/wjpr20249-32153



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#### **ABSTRACT**

**Background:** Psoriasis is a chronic, relapsing, immune mediated skin disorder. The different factors like infections, obesity, alcohol, smoking, psychosocial factors, stress and drugs contributed to psoriasis. This systemic disease can have a dramatic effect on the quality of life of patients and their burden of disease. A long-term therapy is needed for psoriasis. The choice of therapy is determined by disease severity, comorbidities, and access to health care. Mild to moderate psoriasis can be treated topically with a combination of glucocorticoids, vitamin D analogues, and phototherapy, moderate to severe psoriasis requires systemic treatment with corticosteroids, vitamin derivatives and vitamin D topical agents. Case presentation: A 69 year-old woman presented with complaints of pain and redness at right lower lobe. She had personal history of psoriasis 2 years ago, Type 2 DM for 3 years and hypothyroidism for 5 years. She was not on treatment for psoriasis but had taken medicine (T.ACITRETIN 25 mg) 2 years back and discontinued. Now the condition has worsened. Lower limb Doppler study disclosed that the presence of few

inflammatory varicose veins in bilateral lower limb, and no evidence of DVT. She had pain over the knee which represented the psoriatic arthritis. Patient was started with IV fluids, antibiotics, retinoid and own medications and counselled for taking medications correctly.

**Conclusion:** This case concludes that the medication adherence of the patient was poor and was counselled to take the medications properly without fail which caused the occurrence of complications such as psoriatic arthritis and cellulitis.

**KEYWORDS:** Psoriasis, Cellulitis, Psoriatic arthritis, Medication adherence, Lesion.

#### INTRODUCTION

Psoriasis is a papilosquamous, immune mediated and chronic inflammatory skin disease. Prevalence of psoriasis is about 2 % [2], which may vary among different regions. The majority of psoriasis cases correspond to psoriasis vulgaris or plaque-type psoriasis. Innate and adaptative immune responses are responsible for the development of psoriatic inflammation. Types of psoriasis are psoriasis vulgaris, guttate psoriasis, inverse psoriasis and pustular psoriasis. It may affect the skin as well as the joints too. Psoriatic inflammation of the joints results in psoriatic arthritis (PsA). Psoriasis can be highly variable in morphology, distribution, and severity. T-Cell activated inflammatory response has been found to be responsible as the main pathophysiology behind psoriasis. Cellulitis occurs in skin areas that have been damaged or inflamed for other reasons like trauma, surgical wound and skin problems (psoriasis, eczema, scabies, acne).

Moderate cases can be treated with some topical treatments, based on corticosteroids, used in combination with other drugs, such as vitamin D, or alone, such as vitamin D derivatives, vitamin A, and anthralin, are examples of actual topical treatments. The complications of psoriasis are cellulitis and psoriatic arthritis. About  $1/3^{\rm rd}$  of the psoriasis case cause psoriatic arthritis. On this case, the patient was presented with both the cellulitis and psoriatic arthritis.

#### **CASE REPORT**

A 69 year-old woman presented with complaints of pain and redness at right lower lobe. She had medical history of psoriasis back to 2 years, both ear block sensation and pain discharge for 2 months, Diabetes mellitus for 3 years, hypothyroidism for 5 years and her medication history include T. GLYCOMET GP2 (METFORMIN + GLIMEPIRIDE) P/O BD, T. THYRONORM (THYROXINE SODIUM) 50mcg P/O OD, T. FERCID (FERROUS ASCORBATE+FOLIC **ACID+VITAMIN** B12) 1tab P/O HS. T. **TENVA** (TENELIGLIPTIN) 20mg P/O HS, T. DESLOR (DESLORATIDINE) 5mg P/O 0-0-1, T. FEXOMIK (FEXOFENADINE HCl) 180mg P/O 1-0-0, OLFOX EAR DROP (OFLOXACIN) 10ml TDS and CANDID EAR DROPS (CLOTRIMAZOLE +

LIGNOCAINE HCl) 10ml TDS. She also had pain over the knee. She was not on treatment for psoriasis but had taken medicine (T.ACITRETIN 25 mg) 2 years back and stopped. Now the condition has worsened (psoriatic lesion) due to the stoppage of psoriasis medicine (Figure1a and Figure1b). On physical examination she was conscious, afebrile, skin peeling all over the body.





Figure 1a: psoriatic lesion over legs Figure 1b: psoriatic lesion over hands

Laboratory investigation showed elevated HbA1C, RBS ESR and CRP levels and declined hemoglobin & PCV levels. URE showed trace of urine albumin, pus cells (6-7) and epithelial cells (3-4). USG pelvis and abdomen depicted grade 1 fatty liver. Lower limb Doppler study disclosed that few inflammatory varicose veins noted in bilateral lower limb, and no evidence of Deep Vein Thrombosis at present. Here ECHO illustrated moderate Pulmonary Arterial Hypertension and abnormal ECG (functional rhythm).

Initially patient was started on IV fluids (NORMAL SALINE), antibiotics (Inj. CEFBACTAM (CEFOPERAZONE +SULBACTAM) 1.5mg IV BD), retinoid (T. ACROTAC (ACITRETIN) 25mg P/O 1-0-1), proton pump inhibitors (Inj. PANTOP T. (PANTOPRAZOLE) 40mg IV 1-0-1),**CHYMORAL FORTE** (CHYMOTRYPSIN/TRYPSIN) P/O 1-1-1, T. ECOSPIRIN (ASPIRIN) 75mg P/O HS, T. VITAMIN B COMPLEX WITH B12 P/O HS and other own medications. During the hospital period, patient had complaints of breathing difficulty and treated with NEB. DUOLIN (LEVOSALBUTAMOL + IPRATROPIUM BROMIDE) P/N Q8H, NEB. BUDECORT (BUDESONIDE) & SYP. RAPITUS (LEVODROPROPIZINE) 5ml P/O TDS, C. DOXY (DOXYCYCLINE) 100mg P/O 1-0-1. She was hospitalized for 11days and finally the patient got symptomatically improved and discharged.

#### **DISCUSSION**

Psoriasis is a complex multifactorial disease which can cause complications like psoriatic arthritis, depression, cardiovascular disease, dystrophic nails etc. Here a 69 year-old woman presented with complaints of pain and redness at right lower lobe and with a history of psoriasis 2 years back, both ear block sensation and pain discharge for 2 months, cellulitis occurred after stopping the psoriatic medications. She also experienced the knee joint pain that is symptom of psoriatic arthritis. There is high prevalence of undiagnosed psoriatic arthritis in patients with psoriasis.<sup>[5]</sup>

Many cases and studies revealed arthritis as a complication of psoriasis. A systemic review and meta-analysis of Villani AP, et al interpret the result as of 180 psoriatic patients, 62 exhibited arthritis<sup>[6]</sup> and but cellulitis also existed in this case. In a research study conducted by Scarpa R et al showed, <10% of patients with psoriasis developed psoriatic arthritis during a 30 year period<sup>[7]</sup> and the same study has being continued to know the incidence of psoriatic arthritis, which resulted higher incidence than the previous study. [8] The stoppage of psoriatic drug resulted in the worsening condition of psoriasis, which caused cellulitis and psoriatic arthritis, which shows the significance of the adherence to the medication properly.

#### **CONCLUSION**

This case emphasizes that the medication adherence was poor in the patient and was counselled to take the medications correctly. Individualized caring is needed in this situation to overcome the complications of psoriasis.

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