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Case Report

Young lady with acral pustulosis and psoriatic arthritis

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ABSTRACT

Psoriasis is uncommon in this part of the world, and the pustular variety is even rarer. It is for this reason that the patients are frequently misdiagnosed by their health care providers and presentat late to the dermatologists when complications have already set in. We report a case of a 33 year old female who presented to us with a two year history of pustular eruptions on her hands and feet, pain and swelling of joints in the affected areas and subsequent development of deformities. Prior to her presentation, she has been misdiagnosed as having tuberculosis of the skin as well as leprosy in different hospitals and treated as such with no improvement. On presentation to us, a skin biopsy was done and the specimen sent for histopathology. A diagnosis of pustular psoriasis was made and she was placed on oral methotrexate. She responded to treatment and the lesions resolved in a few weeks except for the joint deformities. This case illustrates the challenges encountered by patients with psoriasis in a resource poor setting like ours as well as the importance of availability of affordable drugs like methotrexate in their management. This is so considering the high cost and non-availability of more modern biologic agents in this part of the world.

Keywords: Psoriasis, Arthritis, Acropustulosis

INTRODUCTION

Psoriasis is a chronic, inflammatory, papulosquamous skin disease with variable morphology.[1] It was previously uncommon in the tropics and in dark skinned individuals in the past and this has been attributed to possible genetic factors.[2] Its prevalence, however, has been on the increase in these population over the years. This may be due to increased diagnostic acumen of the healthcare provider and the increasing number of dermatologists. The commonest presentation of psoriasis is the plaque type. Pustular psoriasis and psoriatric arthritis are the rarer varieties of the disease.

Current report present a case of acral pustular psoriasis with associated psoriatic arthritis in a 33 year old Nigerian lady who was successfully treated with oral methotrexate.

CASE REPORT

A 33 year old unemployed lady, resident of Portharcourt, Nigeria presented to the dermatology unit of the hospital with a two year history of pustular eruptions on hands and feet with associated joint pains in the affected parts. She was in her usual state of health until about 2 years prior to presentation when she noticed rashes on both hands and feet. Lesions were said to be pustular and appeared first on the third digit of right foot. This was extirpated by patient with the use of a needle. Over the next few days, she noticed a gradual appearance of similar lesions on the left foot, and hands, left mid thigh, periumblical region and lips.

The lesions were pruritic and gradually worsened. There was no obvious aggravating or relieving factor. There was also a history of swelling and pain of the joints in the affected regions. The lesions later began to produce a yellowish discharge. As the lesion worsened, she developed a generalized body pain, intermittent fever, Joint deformity and stiffness of hands and feet. During the course of this illness, she was diagnosed as having tuberculosis of the skin in a peripheral health facility and placed on anti-Koch's therapy with little or no improvement. She was also misdiagnosed as having leprosy by another healthcare provider. No past medical history was noted.

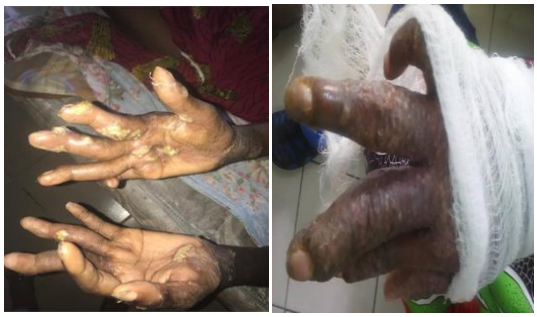

Figure 1: Hands image before treatment.

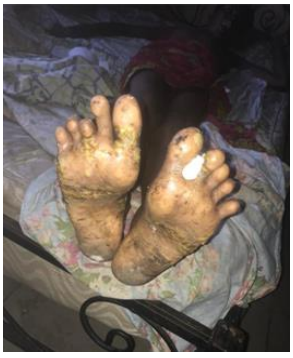

Figure 2: Feet image before treatment.

Examination revealed a young lady in painful distress with multiple pustules on erythematous bases in both hands, feet, lips and peri-umblical region. There was also some interphalangeal joint stiffness, sausage swelling of some affected fingers, swan neck deformities, tenderness and deformity of both hands with some nail dystrophy and discoloration. An impression of pustular psoriasis with arthritis was made. Skin biopsy was done and it revealed acanthosis, parakeratosis and bullous lesions in the epidermis. Also within the epidermis are microabscesses in scattered foci as well aspapillary dermal infiltrations. These features were consistent with psoriasis. Plain X-ray of the hands revealed diffuse soft tissue swelling, erosive changes with associated joint space narrowing in some of the distal interphalangeal joints, pencil-in-cup deformities, subluxationas well as flexion deformities. These findings were suggestive of psoriatic arthritis. Rheumatoid factor was seronegative. She was subsequently placed on oral weekly methotrexate (15 mg weekly), a short course of oral diclofenac and loratidine. The symptoms subsided significantly with total clearance of the skin lesions after several weeks of treatment. However, the deformities of the digits persisted and for this, she was referred to the orthopedic surgeons for further management.

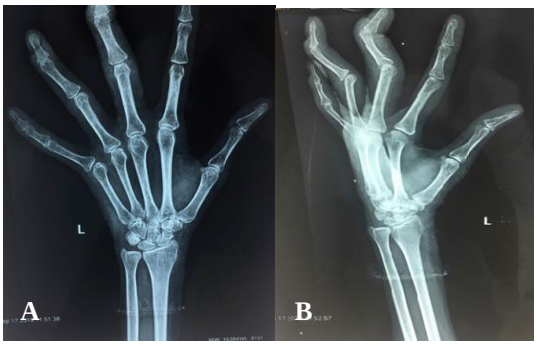

Figure 3: Plain X-ray of left hand; A) PA view, B) lateral view.

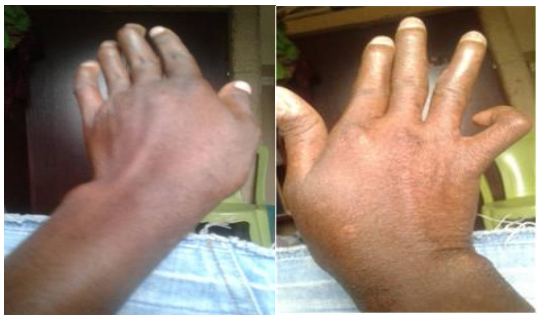

Figure 4: Hands image after treatment.

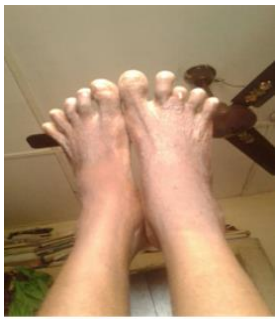

Figure 5: Feet image after treatment.

DISCUSSION

Pustular psoriasis is an uncommon variant of psoriasis. There are two major subtypes of pustular psoriasis – generalized and localized. This patient presented with acropustulosis with concomitant psoriatic arthritis. Psoriatic arthritis is an inflammatory, seronegative arthritis associated with psoriasis of the skin or nails. It is strongly associated with pustular psoriasis. The onset of psoriatic arthritis can predate the skin lesions, occur concurrently or develop after the onset of the skin lesions.

Skin lesions precede arthritis in 60-70% of individuals with psoariasis whereas arthritis precedes skin lesions in 15-20%.[2] There is a strong association with nail involvement (distal interphalangeal joints). It most commonly presents as an asymmetrical oligoarthritis with spondylitis, which may progress to polyarthritis in the clinical course of the disease.[3,4] The index patient had a concurrent development of psoriatic arthritis and pustular psoriasis. She has lived with the disease for several years and visited several healthcare facilities where she was variously diagnosed as having tuberculosis of the skin and later leprosy and treated for such with no improvement in her symptoms. This led to a delay in her presentation to us and a delay in diagnosis and initiation of appropriate treatment. At presentation, patient had already developed complications in the affected joints which could have been prevented if she had presented earlier. The patient was commenced on oral methotrexate (15 mg weekly) with a short course of oral diclofenac. She was also placed on low dose folic acid to counteract the side effects of methotrexate. She had a good clinical response. The skin lesions cleared and the joint pains and swelling subsided significantly within a few weeks of commencing treatment. Methotrexate is a first-line drug in the management of pustules psoriasis.[5] It is also effective in treatment of psoriatic arthritis.[6-9] Current case highlights the challenges encountered in the managements of psoriasis in a developing country like ours. These include, a low level of knowledge of skin diseases among health care providers who are not dermatologists, Non availability of potent anti-psoriatic drugs especially the biologic agents and where these are available, the high cost is often beyond the reach of the average patient. Even the cost of cheaper systemic drugs like methotrexate which was used for this patient can be beyond the reach of some of these patients. Another major challenge is the relative lack of dermatologists and rheumatologists. Lack of accessibility to the few specialists available to the patients will lead to a further delay in diagnosis and institution of appropriate therapy. These barriers, if properly addressed, will go a long way in improving the management and outcome in patients with psoriasis in a developing country like ours.

CONCLUSION

Current case highlights the challenges encountered in the managements of psoriasis in a developing country like ours. These include, a low level of knowledge of skin diseases among health care providers who are not dermatologists, non availability of potent anti-psoriatic drugs especially the biologic agents and where these are available, the high cost is often beyond the reach of the average patient. Even the cost of cheaper systemic drugs like methotrexate which was used for this patient can be beyond the reach of some of these patients. Another major challenge is the relative lack of dermatologists and rheumatologists. Lack of accessibility to the few specialists available to the patients will lead to a further delay in diagnosis and institution of appropriate therapy. These barriers, if properly addressed, will go a long way in improving the management and outcome in patients with psoriasis in a developing country like Nigeria.

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