

A case of maltreated scabies

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Abstract Scabies is a very common skin infestation affecting millions of people worldwide. It presents with typical history and characteristic skin lesions. Scabies is usually diagnosed clinically and treated with topical agents successfully. But misdiagnosis and mal-treatment is not uncommon especially in peripheries. Here we are presenting a mal-treated case of scabies. A 27 years old male patient who had nocturnal itching for 4-months took local treatment of systemic steroids almost on daily basis which resulted in cutaneous cushingoid features, diabetes and hypertension along with super-added bacterial and fungal infections.

Key words

Scabies; Maltreated scabies; Cushingoid features; Steroid induced striae; Abscess in striae.

Introduction

Scabies is a very common skin infestation caused by a tiny mite *Sarcoptes Scabei* Var. *Hominis*, affecting almost 200-300 million people worldwide. It presents with intense pruritus, usually nocturnal, characteristic skin lesions with specific distribution, and history of household contacts. In some cases, it is manifested as bullous or urticarial lesions. It has significant impact on general health, mental and social well-being although death occurs rarely. Diagnosis is usually clinical but can be confirmed by documenting mites, fecal matter or eggs in skin scrapings, through microscopic examination. It is a curable disease mainly with a variety of topical agents like permethrin¹⁻³ crotamiton and sulphur along with anti-histamines and topical steroid. Cases can complicate as vasculitis, bullous pemphigoid and glomerulonephritis⁴ if maltreated or misdiagnosed. Here we are presenting a case that was misdiagnosed by a local doctor and

maltreated with systemic steroids which resulted in cushingoid features, hypertension, diabetes, superadded bacterial and fungal infections.

Case report

A 27-year old male patient presented to the outpatient department with a 4-month history of generalized pruritus along with a 3-month history of multiple discharging sinuses. On general inspection, the patient had overt cushingoid features with typical moon facies, truncal obesity, abscess in the axillary region, and striae atrophicans all over the body that were more pronounced in the lower abdominal region (**Figure 1**). Bilaterally, in the peri-areolar region, lipoatrophy leading to retraction of nipples was seen (**Figure 2**). Multiple discharging sinuses on bilateral axilla, abdomen and inguinal region were present. Two abscesses were present on the medial wall of the right axilla and inguinal region, with the largest in the axilla measuring 4" by 3". Lesions of tinea corporis were also present on the arms and inguinal region. The patient complained of generalized pruritus that was more intense in the genital region. Marks of excoriation and multiple erosions were overtly appreciable on various parts of the body. Crusted erosions were

Manuscript Received on: May 04, 2024

Accepted on: October 22, 2024

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Figure 1 Widespread striae atrophicans on abdomen.



Figure 2 Peri-areolar lipoatrophy and nipple retraction along with discharging sinuses seen below right axilla.

present in the web spaces between fingers of both hands. On probing, it was found that the pruritus was more nocturnal and has been present for the last 4 months. He took multiple treatments for it from local quacks. An old prescription revealed intravenous and repeated oral dexamethasone and prednisolone use. The patient was admitted for the treatment of mistreated scabies and the management of his superadded infections and cushingoid features. During the in-patient stay, a workup was done that showed increased total leucocyte count, a new onset erratic rise in the blood glucose level, and hypertension. Since the patient was taking steroids, the patient was started on a tapering regime, Cardiology was taken on board and anti-hypertensives (a

combination of ACE inhibitors, Calcium channel blockers, and Beta blockers) were added. Blood glucose was monitored over-time without starting insulin. The surgical department was taken on board for abscesses present on the medial wall of the right axilla and inguinal region and they suggested auto-drainage. Ultrasound Doppler was conducted for inguinal swelling and right axilla that showed no specific changes. Lesions of scabies were treated with oral ivermectin, topical permethrin, topical antibiotic agents, and oral anti-allergics. Abscesses were treated with I/V linezolid and tinea was treated with fluconazole I/V and topical clotrimazole. The patient improved in a week. His blood glucose came in the normal range and his blood pressure also gradually decreased. He was discharged on a tapering dose of oral steroids to follow up in dermatology after 2 weeks. He was also counseled about not going to quacks and to seek medical advice first and foremost in the future.

Discussion

Scabies is an ectoparasitic skin infection which in humans is caused by a host specific mite, *Sarcoptes scabiei* var. *hominis*. Globally, scabies is believed to be affecting around 100-300 million people annually. In Pakistan the incidence of scabies among dermatological case-load is expected to be as high as 38.15%⁵ but data regarding exact prevalence is difficult to obtain. Most common presentation of scabies is an intensely pruritic papulo-nodular rash affecting the typical predilection areas i.e. the web spaces, flexor surfaces of the wrists, genitalia etc. However, the exact presentation depends upon the number of mites as well as hosts immune response and defensive behavior.⁶ Topical 5% Permethrin and oral Ivermectin in 200 µg/kg of body weight dosage is the mainstay for the elimination of scabies. Topical crotamiton with sulphur and topical benzyl benzoate can also be used.

In our population, especially the people from lower socioeconomic status tend not to seek treatment for Scabies due to its non-life-threatening nature and unawareness regarding its high transmissibility rates. Self-neglect from the patients and their families, not only reduces the quality of life but also leads to complications mainly being the super added infections caused by *Staphylococcus aureus* or *Streptococcus pyogenes*. Treatment from quacks with topical as well as systemic steroids also creates a huge burden on dermatology as patients tend to present later with steroid induced side effects or in some cases erythroderma⁷ which may further complicate the simple diagnosis as was the case presented here.

Steroid abuse in both topical as well as systemic forms can lead to a plethora of side effects, the most notorious of which is iatrogenic Cushing's syndrome, the severity of which depends upon the dosage and duration as well as the individuals susceptibility.⁸ This can manifest as fatigue, acanthosis nigricans, hirsutism, central obesity, buffalo hump, striae, high blood pressure, hyperlipidemia, osteoporosis and hypertriglyceridemia. Other side effects seen with steroid abuse can be lipodystrophy and superadded bacterial and fungal infections due to suppressed immunity.⁹ Case reports regarding ulceration in corticosteroid-induced striae are limited. Steroid induced striae are caused by the disruption of type I and III collagen synthesis, remodeling and degradation in the dermis resulting in increased sensitivity to minor trauma inducing ulceration.¹⁰ Similar observations were made in our patient whose striae from multiple sites became infected and ulcerated in duration of two months. The recovery was slow but complete.

The treatment of scabies is very simple and patients almost always respond to combination therapy of oral ivermectin and topical scabicides. However, good compliance and

proper decontamination measures is the key to successful treatment. Hence, there should be calls for specific education programs on community level to control this simple to treat yet neglected disease. Special attention should be given to poor communities, school going children and sexual health workers owing to the high risk of transmission in these communities. Seeking professional health workers help instead of going to quacks should be emphasized to save oneself from unfortunate incidents like the one reported here.

Declaration of patient consent The authors certify that they have obtained all appropriate patient consent.

Financial support and sponsorship None.

Conflict of interest Authors declared no conflict of interest.

Authors' contribution

AY,SHA: Identification and management of the case, manuscript writing, has given final approval of the version to be published.

RN,SA: Diagnosis and management of the case, critical review of the manuscript, has given final approval of the version to be published.

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