

Images in Clinical Tropical Medicine

Crusted Scabies

Vijayasankar Palaniappan,^{1*} Hima Gopinath,² and Karthikeyan Kaliaperumal¹

¹Department of Dermatology, Venereology and Leprosy, Sri Manakula Vinayagar Medical College and Hospital, Pondicherry, India;

²Department of Dermatology, Venereology and Leprosy, All India Institute of Medical Sciences, Mangalagiri, Guntur, India

A 54-year-old man presented with mildly itchy erythematous hyperkeratotic crusted plaques over the trunk, gluteal region, and bilateral arms and lower legs for 6 months (Figure 1). He had received multiple intramuscular dexamethasone injections from a general practitioner for his pruritus. He had type two diabetes mellitus and was on oral antihyperglycemic agents. His random blood sugar was 498 mg/dL and HbA1c was 10.1. A microscopic examination of the scrapings from hyperkeratotic lesions demonstrated numerous *Sarcoptes scabiei* mites, eggs, and scybala (Figure 2). A diagnosis of crusted scabies was made, and he was admitted in an isolation ward. He was treated with daily overnight topical 5% permethrin cream for 7 days and oral ivermectin on days 1, 2, and 8. The skin scraping turned negative on completion of treatment.

Crusted scabies is a highly contagious variant of scabies characterized by unhindered proliferation of the *S. scabiei* mite. Unlike classical scabies, pruritus is either mild or absent. Scabies is transmitted through direct skin-to-skin contact and, to a lesser extent, via fomites.¹ The high mite burden of crusted scabies can trigger nosocomial outbreaks.² Crusted scabies is commonly observed in patients with immunosuppression, neurological diseases with reduced sensation, and psychiatric disorders. Crusted scabies presents as erythematous, hyperkeratotic, fissured, and yellow-to-brown crusted plaques. Psoriasiform or verrucous lesions may also be seen.

The crusts when removed have a porous appearance on the undersurface.¹

The complications include secondary infections with *Staphylococcus aureus* and *Streptococcus pyogenes*, generalized lymphadenopathy, erythroderma, and rarely septicemia. The diagnosis is based on the clinical features and microscopic demonstration of the mites or their eggs or scybala.³ Dermoscopy and reflectance confocal microscopy can be used to visualize the mite. The management of crusted scabies includes isolation of patients till cure, the use of combination therapy with oral ivermectin, topical permethrin and keratolytics, and treatment of all household and close contacts.^{1,4}

Received October 10, 2020. Accepted for publication October 15, 2020.

Authors' addresses: Vijayasankar Palaniappan and Karthikeyan Kaliaperumal, Department of Dermatology, Venereology and Leprosy, Sri Manakula Vinayagar Medical College and Hospital, Pondicherry, India, E-mails: vijayasankarpalaniappan@gmail.com and karthikderm@gmail.com. Hima Gopinath, Department of Dermatology, Venereology and Leprosy, All India Institute of Medical Sciences, Guntur, India, E-mail: hima36@gmail.com.

This is an open-access article distributed under the terms of the Creative Commons Attribution (CC-BY) License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.



FIGURE 1. Multiple erythematous hyperkeratotic crusted plaques over the gluteal region and lateral aspect of thighs. This figure appears in color at www.ajtmh.org.

* Address correspondence to Vijayasankar Palaniappan, Department of Dermatology, Venereology and Leprosy, Sri Manakula Vinayagar Medical College and Hospital, Madagadipet, Pondicherry 605107, India. E-mail: vijayasankarpalaniappan@gmail.com

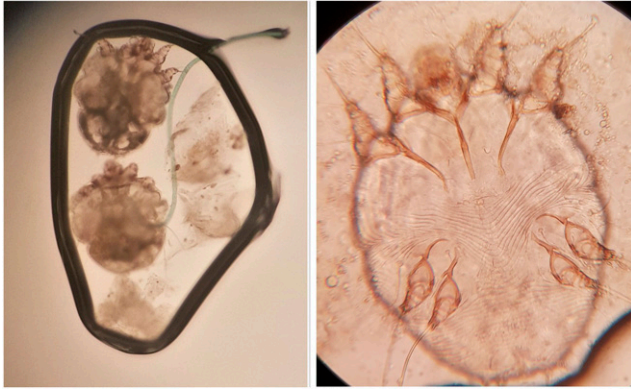


FIGURE 2. Left side, microscopic examination of crusted plaque at low power revealed *Sarcoptes scabiei* mite, scybala, and eggs. Right side, high-power view of the mite. This figure appears in color at www.ajtmh.org.

REFERENCES

1. Karthikeyan K, 2009. Crusted scabies. *Indian J Dermatol Venereol Leprol* 75: 340–347.
2. Hengge UR, Currie BJ, Joger G, Lupi O, Schwartz RA, 2006. Scabies: a ubiquitous neglected skin disease. *Lancet Infect Dis* 6: 769–779.
3. McCarthy JS, Kemp DJ, Walton SF, Currie BJ, 2004. Scabies: more than just an irritation. *Postgrad Med J* 80: 382–387.
4. Salavastru CM, Chosidow O, Boffa MJ, Janier M, Tiplica GS, 2017. European guideline for the management of scabies. *J Eur Acad Dermatol Venereol* 31: 1248–1253.