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**Abstract**

# Crusted Scabies as a Suitable Disease for Teledermatology: A Study of 2 Cases

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**Abstract**

**Background:** Teledermatology has been available for several years now, but the COVID-19 pandemic has highlighted its importance, especially in remote communities. Crusted scabies (CS) presents a unique clinical picture that favors telediagnosis. Patients with neurological diseases, as well as homeless, HIV-infected patients and people with impaired immunological function, are at risk. Clusters of CS have been reported in French Guyana, and these were associated with human T-lymphotropic virus infections. CS has also been reported in Aboriginal Australian communities.

**Objective:** Teledermatology is especially useful in cases of CS, as it is a disease that affects areas that are in need of medical services. At the same time, CS presents a unique clinical picture. The objective of this presentation is to fuel the clinical suspicion and detection of patients with this debilitating condition.

**Methods:** Relatives of patient 1 contacted our clinic for teledermatology appointments. General practitioners from health services sent images of the second patient.

**Results:** Case 1 involved an older woman living in a nursing home with Alzheimer disease, which was severe enough to constrain her to bed. We recommended that her relatives (who had sent images) collect skin scrapings in a container. These scrapings were sent to a clinical analysis laboratory where microscopic potassium hydroxide preparation revealed the presence of *Sarcoptes* mites. Treatment with oral ivermectin and topical permethrin resulted in the complete resolution of the lesions. Case 2 involved a homeless, HIV-positive, 42-year-old male. The images were sent by clinicians from local health services. This patient was also treated with oral ivermectin and permethrin lotion. We recognize that this case would need further diagnostic workup, but it is highly indicative of CS.

**Conclusions:** CS is one of the most suited diseases for the practice of teledermatology for widespread, large, hyperkeratotic fissured plaques covered with abundant, silvery scales for which the expression “once seen, never forgotten” is highly applicable. These cases are gratifyingly simple to treat, and patients benefit from rapid clinical improvement. Prompt diagnoses prevent outbreaks of scabies for relatives and medical personnel, since these skin crusts contain large numbers of scabies mites. CS has been increasingly reported but poorly recognized, and it has often been misdiagnosed as psoriasis. Images, such as those shown in this presentation, are unique and are enough to raise strong clinical suspicion.

**Conflicts of Interest:** None declared.

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**KEYWORDS**

crusted scabies; teledermatology

### Multimedia Appendix 1

1a and 1b: White-silvery scales over the hands and arms; 1c: Mites and its black round fecal matter (scybala) through microscopic examination; 1d: Significant clinical improvement after treatment.

[[PNG File , 2440 KB-Multimedia Appendix 1](#)]

### Multimedia Appendix 2

2a: Disseminated hyperkeratotic lesions covered with thick, silvery-white scales over the legs and feet; 2b: Extensive erythema and crusted edema over arms.

[[PNG File , 1112 KB-Multimedia Appendix 2](#)]

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