Scalp involvement by *Sarcoptes scabiei var hominis* resembling seborrhoeic dermatitis in two immunocompromised patients with systemic lupus erythematosus

Antonia Birry, Paul Jarrett

**Abstract**

Scabies is a common condition in New Zealand but scalp infestation by the mite is not often considered. Topical treatments traditionally do not involve the scalp. We report two cases of immunocompromised patients with systemic lupus erythematosus (SLE) who had scalp infestation clinically mimicking seborrhoeic dermatitis.

**Case report**

**Case 1**—A 37-year-old Cook Island Māori female with established SLE and cutaneous involvement, was referred to the Dermatology Clinic for the assessment of a further rash that she had developed approximately 4 weeks after returning from the Cook Islands. The itchy rash had persisted despite treatment with 5% permethrin cream. Her medications were prednisone 40 mg once daily and hydroxychloroquine 400 mg once daily.

She had an eczematous rash affecting the trunk and limbs, however no burrows were seen. In the hair bearing areas of the scalp there was an inflammatory dermatosis consisting of scale and erythema resembling seborrhoeic dermatitis (Figure 1). A skin scrape of the scalp confirmed the presence of *Sarcoptes scabiei var hominis*.

**Figure 1. Case 1—scale and erythema in the scalp resembling seborrhoeic dermatitis**
She was treated with two doses of ivermectin (200 µg/kg) 7 days apart. The rash on her scalp and body resolved. Subsequent skin scrapes of the scalp revealed no further mites.

Case 2—An 18-year-old Tongan female admitted with arm cellulitis was referred by the surgical services to the Dermatology Inpatient service. She presented with several weeks of itching and a rash over the scalp, trunk and limbs. She had an established diagnosis of SLE. Her medications were prednisone 60 mg once daily and azathioprine 100 mg once daily which she had been taking for 7 months.

Examination revealed multiple typical scabetic burrows. There was a scalp dermatosis confined to the hair bearing areas consisting of scale and erythema resembling seborrhoeic dermatitis.

A scalp scraping confirmed the presence of *Sarcoptes scabiei* var *hominis* (Figure 2).

**Figure 2. Case 2—*Sarcoptes scabiei* var *hominis* from scalp scraping**

She was successfully treated with a combination of topical 5% permethrin cream applied to all of the skin (including the face and scalp) and 1% malathion shampoo.
Discussion

There are few reports of scalp involvement by *Sarcoptes scabiei var hominis*. The hair bearing areas of the scalp are often not considered to be a site of active infestation by the scabies mite and traditionally topical treatments are not applied to this area.

Immunocompromised patients (due to drugs, disease or both) may present with crusted or “Norwegian” scabies. Crusting refers to the clinical appearance of the skin often around the hands due to a very high mite burden. In these circumstances the scalp should be considered as a potential reservoir of infection however neither of these two reported cases had such crusting. Immunosuppression is commonly but not always needed for scalp involvement.

General advice from the Centre for Disease Control and Prevention (CDC) is to apply the cream from the neck down but in infants and young children to also treat the entire head and neck including the scalp. The CDC recommends that ivermectin should be considered in patients who have failed treatment with, or who cannot tolerate, Food and Drug Administration (FDA)-approved topical medications for the treatment of scabies but notes that it is not FDA approved. In 2012, Pharmac subsidised the use of ivermectin, subject to preconditions, for crusted scabies and institutional outbreaks.

There are previous reports of scalp scabies mimicking seborrhoeic dermatitis and scabies involving the scalp in the setting of immunosuppression and connective tissue disease. Ivermectin has been used previously to treat three patients with dermatomyositis who had scalp involvement.

In these two additional reported cases the mite burden was large enough to have been able to identify them by scalp scrapings and therefore the scalp would have constituted a significant source of re-infection for the patients and their families if left untreated.

Author information: Antonia Birry, Registrar and Paul Jarrett, Dermatologist, Department of Dermatology, Middlemore Hospital, Otahuhu, Auckland

Correspondence: Dr Paul Jarrett, Module 7, Manukau Superclinic, PO Box 98 743, Manukau City 2241, Auckland, New Zealand. Fax: +64 (0)9 2771635; email: Paul.Jarrett@middlemore.co.nz

References:


