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Masked tinea

Figure 1. During her hospitalization for rehabilitation, the patient was masked. On hospital day 22, she complained of itching on her face. Removal of the mask revealed erythema on the right side of her face. Analysis of the lesions with potassium hydroxide confirmed tinea faciei.

A 91-year-old woman was admitted to the hospital with a 1-month history of anorexia. On admission, there were no significant abnormal findings, including in the face and mouth. She had been taking colchicine for gout, and this medication was suspected as the cause of anorexia. Colchicine was thus discontinued, her anorexia rapidly improved, and her hospitalization continued for rehabilitation. She wore a mask during this time.

On day 22 of hospitalization, the patient complained of itching on the face. Therefore, we asked her to remove her mask for examination. On removal of the mask, we noted a painless rash that extended from the forehead to the mandible on the right side of her face. The rash had well-defined borders, with small eczematous lesions at the margins and fine scaling (**Figure 1**). Differential diagnoses such as cellulitis, herpes zoster, seborrheic dermatitis, or contact dermatitis were ruled out because the lesions were painless, without blisters, and with distinct borders.

Microscopic study of a lesion preparation using potassium hydroxide showed tinea faciei, a filamentous fungal infection (**Figure 1**). She also had tinea pedis on both feet. Topical terbinafine ointment was prescribed, and the lesions improved within 2 months.

TINEA AND MASKS

Our patient's tinea faciei was likely attributable to her wearing a mask every day for almost the entire day, in addition to her touching her feet and face. Prolonged mask-wearing has been reported to be a risk factor for

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facial dermatitis[1] and may trigger skin temperature elevation, sweating, and irritation, which could result in the development of tinea faciei.[2]

To prevent tinea faciei, changing the face mask daily, avoiding wearing a mask continuously more than 6 hours a day, and washing the face and hands may be recommended based on a previous report.[2]

The diagnosis in our patient was delayed because large areas of tinea faciei were hidden by the patient's mask. Indeed, mask-related diagnostic delays have been reported in cases of facial dermatologic diseases such as facial skin tumors.[3,4] In particular, hospitalized patients would seem at high risk for delayed diagnosis of facial skin problems since medical staff rarely ask patients to remove their masks during rounds.

Lesions on the patient's forehead could have been detected earlier, as the mask did not cover the forehead. However, physicians did not recognize the lesions, perhaps because of cognitive bias based on a low suspicion for the development of tinea faciei, but also perhaps because the yellow and dark skin color of the patient's face made recognition of the lesions more difficult.

Our patient's case should serve as an alert to pay more attention to facial skin problems that may not be visible because of masks, and to examine the patient's face without the mask. Scheduling regular head-to-bottom examination in patients hospitalized for long periods may help prevent this kind of infection.

DISCLOSURES

The authors report no relevant financial relationships which, in the context of their contributions, could be perceived as a potential conflict of interest.

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