

Tinea Lesions Confined to Tattoo Site

Sir,

While there are numerous reports of infectious and inflammatory reactions appearing on tattoo sites, dermatophyte infections occurring on tattoo sites are uncommonly reported, given the current epidemic outbreak of dermatophyte infection in India.

We would like to bring to your attention our encounter with four patients having tinea lesions which were limited

to the tattoo site only while the rest of the body was conspicuously spared. In all the four patients, tattooing was done with black ink [Figure 1]. Thin hyaline branching septate hyphae was seen on potassium hydroxide mount, and *Trichophyton rubrum* was grown on culture in three patients, and *Epidermophyton floccosum* in one patient. Gram stain was negative in all cases. All the four patients were given oral itraconazole 100 mg twice daily for



Figure 1: (a) Patient 1, (b) Patient 2, (c) Patient 3, and (d) Patient 4. In all the patients, tinea lesions were limited to the tattoo site

2 weeks and topical amorolfine cream to apply on the affected area once daily for 4 weeks. There was complete clinical cure at the end of 4 weeks.

A few authors have tried to explain this phenomenon with two possible theories. Direct cutaneous inoculation can occur at the tattoo site through contaminated instruments or due to reduced local, humoral, and cellular immunity due to black pigment in the tattoo ink.^[1,2]

In all our patients, the tattoos were more than 2 months old while the appearance of infection was acute. As the incubation period of tinea corporis is 4–10 days, it cannot be logically explained that the infections were acquired from the instrument in our patients. In their case report, Miller *et al.* observed that warts appeared on a 10-year-old tattoo, but they were only restricted to the area of black ink.^[3] The authors attributed this phenomenon to loss of local immunity which must be caused by the black ink as the other differently colored areas were spared.

Similarly, all our patients had tattoos with black ink and the tinea lesions were restricted to the tattoo area only while the other areas were strikingly spared. This finding rules out instrument-acquired infection while substantiating the hypothesis of black ink causing loss of local immunity.

With the increasing trend of tattooing and simultaneous resurgence of dermatophytic infections, the incidence of infection on tattoos may be a cause for concern in future. This case series is probably the first series to be reported from India to the best of our knowledge.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and

other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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Access this article online	
Website: www.idoj.in	Quick Response Code: 
DOI: 10.4103/idoj.IDOJ_319_18	

How to cite this article: Panda M, Patro N, Raj C, Pattnaik M. Tinea lesions confined to tattoo site. *Indian Dermatology Online J* 2019;10:474-5.

Received: August, 2018. **Accepted:** December, 2018.

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