

## DERMATOPHYTOSIS OF THE SCROTUM, PENIS AND LIP

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A young male had tinea cruris due to *Epidermophyton floccosum*. He had associated dermatophytosis of the scrotum, penis and upper lip from which the same species of fungus was isolated. On the lip, the lesion extended to the vermillion area (prolabium) of the lip and the term 'tinea labialis' is suggested for this condition.

**Key words :** Dermatophytosis, Tinea cruris, Tinea labialis.

Tinea cruris, dermatophytic infection of the groin, is commonly caused by *Epidermophyton floccosum*, *Trichophyton rubrum* and *Trichophyton mentagrophytes*. The disease may spread from the groin to the perineum and peri-anal region. But the skin of the scrotum and penis appears to be resistant to infection with dermatophytes, though a few cases of its involvement have been reported.<sup>1-3</sup> Here we report a case of tinea cruris in a young male who had associated circinate scaly patches of dermatophytosis on the skin of the penis and scrotum and on the vermillion area (prolabium) of the upper lip.

### Case Report

A 21-year-old male developed pruritic scaly patches on both the groins, thighs and the scrotum since 6 weeks, and circinate scaly lesions on the penile skin and upper lip since 2 weeks. The lesion started on the left groin and gradually spread to involve the other areas. He had not received any treatment for this condition. There was no history of using tight-fitting under-wears.

Examination revealed scaly patches with well-defined erythematous borders studded with numerous papules, papulo-vesicles, tiny crusts and scales on both inguino-crural areas extending to the upper and medial parts of both thighs and on the upper part of scrotum on both sides. There were multiple, circinate, scaly patches with well-defined, raised borders on the penile skin (Fig. 1). A single similar patch was noted



**Fig. 1.** Tinea cruris in a male. Lesions extend to the upper part of the scrotum on both sides. Note multiple circinate lesions on the skin of the penis.

on the upper lip. Lower 1 cm of this patch extended to the vermillion area of the upper lip (Fig. 2) and here the border was more erythematous but less scaly. There was no regional lymphadenopathy and the glans penis was normal. Many papules and comedones of acne vulgaris were seen on the face. All other systems were normal.

Routine laboratory tests on blood, urine and stools were normal. Blood VDRL was negative. Epidermal scrapings taken from the active border of the lesions on the groin, scrotum, penis and from both upper and lower borders of the lesion on the lip showed refractile branching, septate hyphae in 10% KOH mounts. Culture of the scales taken from all the four lesions, in Sabouraud's agar allowed the growth

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Fig. 2. 'Tinea labialis'. Note extension of the lesion to the vermillion area (prolabium) of the upper lip.

of colonies that were identified as *Epidermophyton floccosum*. Topical application of 1% tolnaftate cream twice daily for two weeks led to complete cure of the disease.

#### Comments

The skin of the scrotum and penis seems to be quite immune to dermatophytic infection. But experimental inoculations to the scrotum result in the disease which is of shorter duration than that of the thigh. La Touche has found that in many cases of tinea cruris, the scrotum is culturally positive, even in the absence of

clinical signs.<sup>4</sup> Only a few cases of dermatophytosis of the penis and scrotum have been reported.<sup>1-3</sup> In our patient, the disease spread from the groin to the scrotum, penis and upper lip. The lesion extended from the hairy skin of the face to the non-hairy vermillion area (prolabium) of the upper lip. This zone of the lip is not mucosa but glabrous skin which contains abundant sebaceous glands.<sup>5</sup> Increased sebum, that contains fatty acids, may be a factor that makes this area commonly immune to dermatophytic infection. Still there is no wonder if infection occurs in this area with keratinophilic dermatophytes since the epidermis here is stratified squamous type and contains keratin in the horny layer. To the best of our knowledge, dermatophytic infection of the vermillion area of the lip has not so far been reported and we suggest the term 'tinea labialis' for this condition.

#### References

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