

Answers to Dermato-venereological Quiz on page 148

1. The differential diagnoses in this case include trichomycosis axillaris, trichomycosis nodularis (or Piedra), pseudo-nits from deposition of hair casts, and pediculosis.
2. The principal investigations include Wood's light examination (Figure 2) and plucked hair for potassium hydroxide wet mount microscopy (Figures 3a and 3b). Dermoscopy can assist in diagnosis. Plucked hairs for bacterial culture is essential if species identification is required. Gram stain, Periodic acid-Schiff stain and methylene blue stain on formalin-fixed, paraffin-embedded hair samples produce characteristic colour changes on the bacterial clumps, further contributing to the diagnosis.
3. Trichomycosis axillaris. The diagnosis is a clinical one. A positive Wood's light examination will support the diagnosis. The hair shaft coating will usually fluoresce bright-yellow under ultra-violet light (Figure 2). Potassium hydroxide wet mount microscopy will show opaque material surrounding the involved hairs without actual invasion into the hair cortex or medulla (Figure 3). For lice infestation, patients will invariably complain of pruritus and on examination, there may be excoriations. In addition, nits and ectoparasites may be seen on dermoscopy. In case of piedra, fungal spores and hyphae could be easily visualised under wet mount microscopy. Regardless of the underlying cause, the hair casts and parakeratotic scaling can be visualised under wet mount microscopy.
4. Young age, male gender, poor personal hygiene, excessive apocrine sweat production, obesity, warm and humid/tropical climate are the recognised factors predisposing individuals to this particular condition. As pubic and inguinal, genitalia and inter-gluteal fold regions share similar physical characteristics with the axillae, these are prone to bacterial proliferation and hence Trichomycosis axillaris.

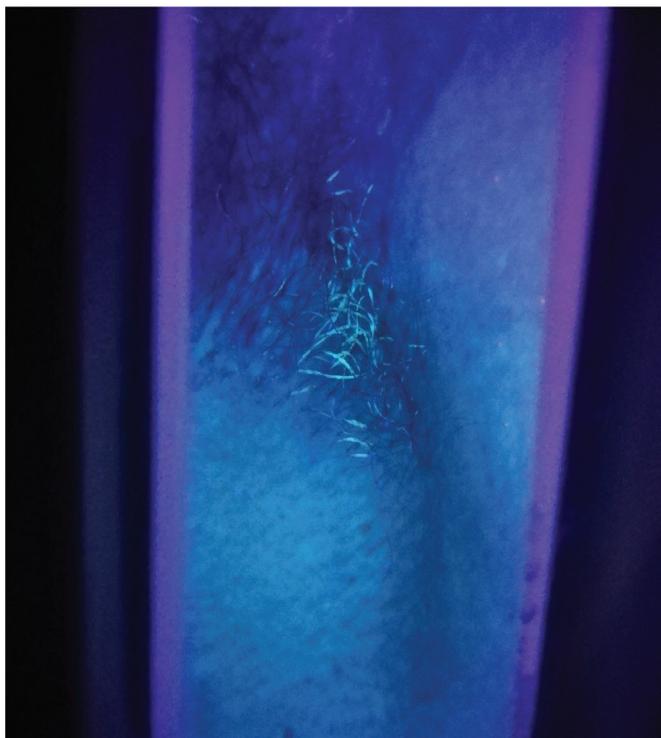


Figure 2. The appearance of the affected hairs under Wood's light examination. Bright yellowish fluorescence is easily discerned. The underlying skin was normal-looking.

5. *Corynebacterium* species. The majority of cases are caused by *Corynebacterium tenuis* and *Corynebacterium flavescens*. There has been one case report of infection due to *Corynebacterium propinquum*. These are Gram-positive coccoid and diphtheroids that can also cause pitted keratolysis and erythrasma. Co-existence of all three conditions within the same individual is termed "Corynebacterium triad." Apart from *Corynebacterium*, *Serratia marcescens* has rarely been implicated in the pathogenesis of Trichomycosis axillaris. Wood's light examination would be negative. Microbiological culture is the only way to confirm the diagnosis.
6. Shaving of axillary hairs alone can eradicate bacterial colonisation. The outcome is good if shaving is continued for several weeks. It is recommended that the affected areas be kept dry at all times if possible. Use of anti-perspirants may help to reduce humidity, thus suppressing bacterial proliferation. Concurrent topical medications (such as benzoyl peroxide, clindamycin or erythromycin) applied on the affected areas for a few weeks are effective and also prevent recurrence. Our patient was prescribed topical clindamycin lotion. He was lost to follow-up.
7. The outlook is excellent regardless of management strategies. Even if left untreated, trichomycosis axillaris will not result in systemic ill-health. So far, no serious complications have been reported in the literature.

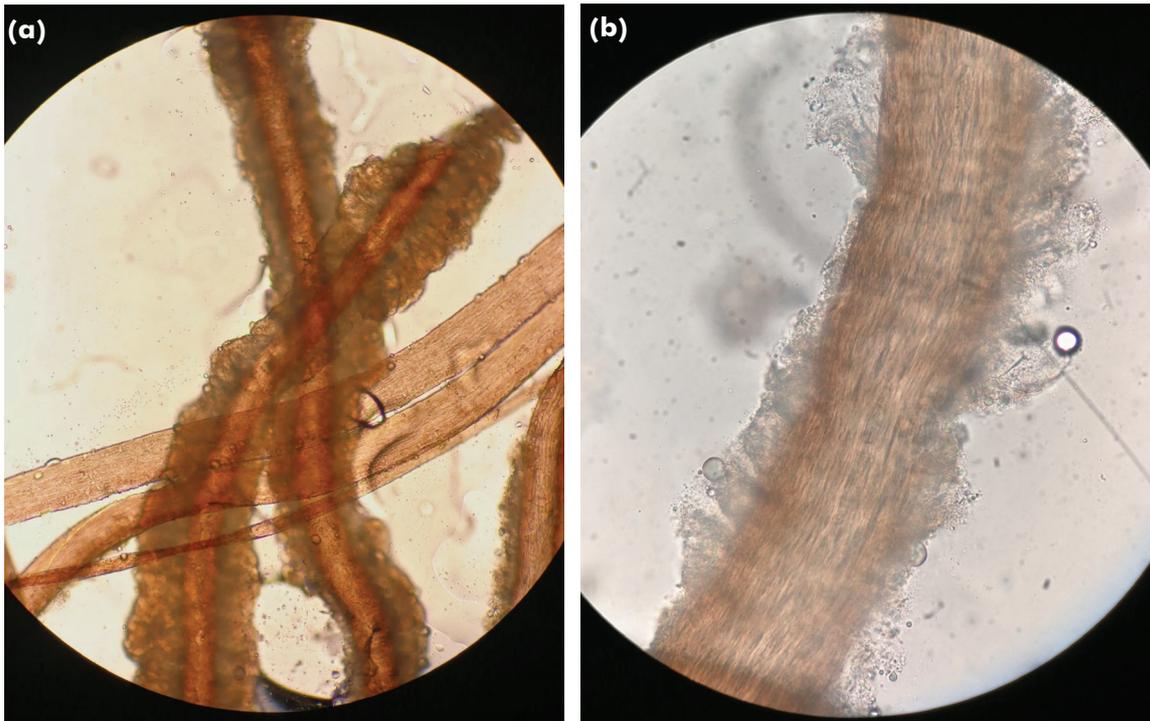


Figure 3. (a) The medium power magnification of the plucked axillary hairs. Note the adherent concretions of bacterial clumps coating the hair surfaces. (Unstained, potassium hydroxide wet mount preparation, x200). (b) The high-power magnification of the plucked axillary hairs. Reduced translucency is observed amongst the clumps. Note that the cortex and medulla of the hairs are both spared. (Unstained, potassium hydroxide wet mount preparation, x400).