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Green concretions on the left axillae

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Case study

A man, 47 years of age, with an unremarkable past medical history, attended our dermatology outpatient clinic having developed changes in the colour and texture of the hair of his left axillae 2 weeks earlier, causing him moderate itching. He did not remember any changes in his lifestyle or recall any changes in sweating patterns.

On dermatological examination, a green sheath covering terminal hairs was observed (*Figure 1*). Contralateral axilla was not involved. Examination with a Wood lamp showed a green fluorescence.

No lymphadenopathy was present and the remainder of the physical findings were within normal limits. Laboratory

investigations, including full blood count, general biochemistry and urinalysis were normal.

Question 1

What is the most likely diagnosis?

Question 2

What is the aetiology of this condition?

Question 3

What factors can contribute to its development?

Question 4

How can it be treated?

Answer 1

The most likely diagnosis is trichomycosis axillaris.

Answer 2

Trichomycosis axillaris is a condition belonging to the group of so-called pseudomycosis. It is not caused by fungi but is frequently difficult to



Figure 1. Green filamentous concretions in the hair follicles on the left axillae

distinguish clinically from fungal dermatoses. Differential diagnoses include erythrasma, caused by *Corynebacterium minutissimum*, and protothecosis, the aetiology of which is due to microscopic algae of the Prototheca genus.¹

The aetiology of trichomycosis was initially attributed to *C. tenuis* although its clinical development has recently been related to several species of *Corynebacterium*. The presence of *Corynebacterium* in hairy areas results in the formation of amorphous, hard or soft nodules, arranged around and along the hair shaft, and sometimes producing fluorescence under ultraviolet light exposure.²

The colour of these concretions is usually yellowish-white, although it may be red and, more rarely, black. The nodules are composed of a large number of bacteria. It has been assumed that they secrete a viscous substance to facilitate their adherence to the hair without making an endothrix parasitism.³

Answer 3

Trichomycosis develops in both tropical and temperate climates. There is no racial or gender predisposition. Factors that may trigger appearance include hyperhidrosis and poor hygiene. In some patients, excessive sweating, mixed with the products of bacterial metabolism, results in stains on clothing, which is usually the reason for medical consultation. Differential diagnoses include the condensation of foam in some micropulverisation systems of deodorants, axillary lice and other fungal dermatoses.⁴

Answer 4

Treatment strategies involve shaving the area and following appropriate hygienic practices, and using antiseptic and antiperspirant deodorant sprays in order to control hyperhidrosis. Among topical therapies that can be considered, topical antibiotics such as erythromycin and clindamycin, or imidazole antifungals (clotrimazole, miconazole, ketoconazole and econazole) are the most utilised choices.

Resource

DermNet NZ – Trichomycosis axillaris. Available at www.dermnetnz.org/bacterial/trichomycosis-axillaris.html.

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