

*\*\*no patient handout*

## **Trichomycosis axillaris - Skin**

### **Synopsis**

Trichomycosis axillaris is an asymptomatic superficial bacterial infection caused by *Corynebacteria*. It is relatively common and is the result of bacterial overgrowth, with concretions forming on hair shafts in moist regions of the body. It affects chiefly the hair of the axilla but may, to a lesser extent, involve the pubic hair as well (trichomycosis pubis). Trichomycosis axillaris may affect any age group from puberty through adulthood. The condition appears to affect males more often, likely because many women shave the axillary hair.

Recent evidence suggests that patients with one cutaneous disease process caused by *Corynebacteria*, such as trichomycosis axillaris, may often have other related and coincidental disease processes caused by the same bacterial species, such as pitted keratolysis (a *Corynebacterial* infection of the feet) or erythrasma (a *Corynebacterial* infection of the intertriginous skin).

### **Codes**

ICD10CM:

A48.8 – Other specified bacterial diseases

SNOMEDCT:

49894005 – Trichomycosis axillaris

### **Look For**

Yellow, red, or black concretions on the hair shaft. These nodular concretions can be seen with the naked eye and usually measure about 1-2 mm in size. The concretions encircle the hair shaft, making it appear beaded or thicker. These concretions represent bacterial colonies and the insoluble cement substance elaborated by the bacteria that adheres to the hair shaft. The yellow color is observed most often and may stain clothes yellow. Black and red are seen most often in tropical climates. There is frequently an associated foul odor.

### **Diagnostic Pearls**

The nodules are firm and adherent to the hair. The concretions are not mobile on the shaft, and with rare exception, the hair shaft is intact and not excessively fragile.

### **Differential Diagnosis & Pitfalls**

The differential diagnosis of trichomycosis axillaris includes the following:

- **Black piedra and white piedra** – a fungal infection consisting of darkly pigmented (black) or lightly pigmented (white) concretions on the hair that are firm (black) or soft

and gelatinous (white). The scalp is preferentially involved in piedra, and hair breakage is more common than in trichomycosis axillaris. A KOH examination reveals hyphae.

- Hair casts – parakeratotic scale that encircles the hair and may be freely moved up and down the shaft. These casts are often found in association with inflammatory conditions, such as **seborrheic dermatitis** or **psoriasis**.
- Pediculosis – **pediculosis pubis** (the crab louse) may occasionally form nits on the pubic hair that are fixed. Upon microscopic exam, the adult louse is identified on the hairs near the base.

## Best Tests

Microscopic examination of the hairs, after treating them with potassium hydroxide, will demonstrate bacteria within concretions. Gram stain of the concretions reveals the *Corynebacteria* as Gram-positive, long, slender rods. Bacterial culture is usually not necessary for diagnosis.

## Management Pearls

Bathing with antimicrobial soaps and shaving the affected hair successfully treats the condition and prevents future infection.

## Therapy

The condition is asymptomatic. Improved hygiene, including bathing with antimicrobial soaps and shaving the affected hair, successfully treats the condition and prevents future infection. Benzoyl peroxide wash is also a useful addition to the bathing regimen. Topical treatment with erythromycin and clindamycin solutions is also effective. Usually, systemic drugs are not required to treat this condition, but if desired, oral erythromycin is an effective treatment.