

CASE REPORT

Palmellin Trichomycosis: Dermoscopy. Report of two cases of infrequent localization.

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ABSTRACT

Trichomycosis palmellina (TP) is a superficial bacterial infection, mostly asymptomatic caused by corynebacterium. Usually affects the axilla, where nodules and sheaths of hard material surround the affected hairs, but there are also reports in which pubic hairs, scrotal hairs and the scalp have been compromised. Clinically, there are three forms in which the disease can manifest: flava (yellow), rarely rubra (red) and nigra (black). We describe two trichomycosis palmellina cases of uncommon locations that came to consult because of changes in the texture and color of the hairs. The first patient is a girl with scalp involvement, followed by a man with several months history of disease of pubic hairs.

INTRODUCTION

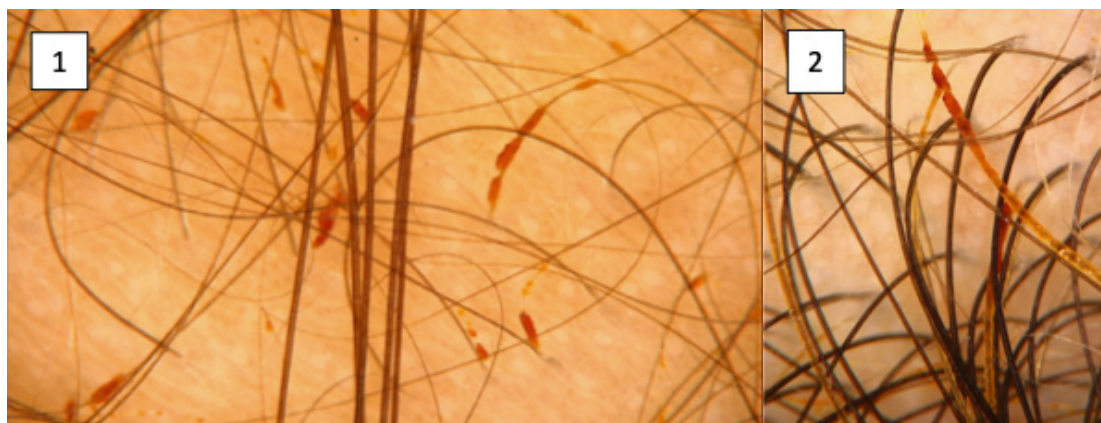
TP is a rare, asymptomatic, superficial bacterial infection that affects the axillary hair and, less frequently, the pubic, scrotal, and intergluteal hairs. It can also compromise the scalp. Clinically it can manifest itself in 3 ways: yellow or flava, which is observed in 95-98% of cases and, exceptionally, the red (rubra) and black (nigra) varieties.^{1,2} It begins with the increase in bacteria, which may be part of the normal flora. These adhere to the surface of the hair, without destroying it, by means of a cementitious substance, produced by the microorganism itself or derived from excessive sweating.⁴

TP is a cosmopolitan pathology, observed more frequently in regions with tropical or subtropical climates. It mostly affects men. It is usually asymptomatic although patients report hyperhidrosis, bromhidrosis and chromhidrosis. They also consult for noticing the pre-

sence of nodules by touch, changing the texture of the same. For diagnosis, clinical findings are sufficient in addition to dermoscopy and, if necessary, Wood's light and microbiological study with KOH, Gram staining, and culture. The dermatoscope will reveal yellowish concretions or masses, but also red and black and irregular ones that surround the follicle giving an image of "old bare wire." These concretions respect the follicular ostium and the surrounding skin.⁵ The main differential diagnoses are trichorexis nodosa, moniletrix.

Clinical Case 1

A 4-year-old female patient with no medical history, consulted with her mother, who reported a 4-week clinical picture, characterized by changes in the color of the scalp in the occipital region, as well as irregular texture, a hard sensation, and adhered material.



Photos 1 and 2. Dermoscopy showing the reddish concretions surrounding the hair.

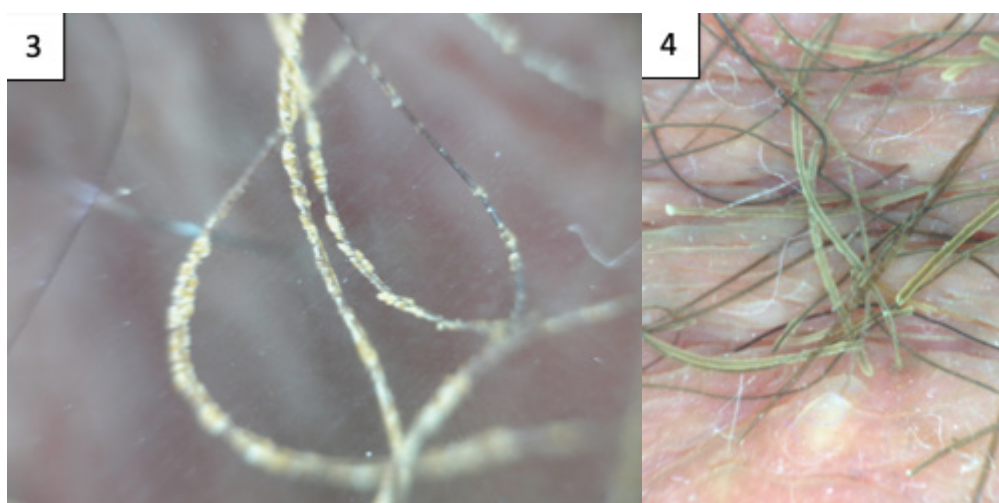


Photo 3. Dermoscopy with image of old bare wire. Photo 4. Similar image with polarized light.

On physical examination, lumpy-looking hairs are seen in the occipital region. Under the dermatoscope we noticed that these concretions have an irregular appearance and a reddish color. (Photo 1 and 2).

A microbiological study is requested, which revealed by direct observation, coccoid and diphtheroid structures compatible with gram-positive corynebacteria. Pleomorphism and v-shaped palisade bacilli were evidenced as “drum sticks.” By means of the dermoscopic image we suspected trichomycosis variety rubra and after the microbiological examination, it was confirmed. The treatment was based on fusidic acid, two applications a day for two weeks. She was re-evaluated after one month, with no recurrences.

Clinical Case 2

A 56-year-old male patient with no medical history, attended due to a clinical picture of 10 months of evolution, characterized by changes in the texture of pubic hair, as well as a bad odor from sweating. He refers this picture has evolved, with a progressive increase in compromised hair. Upon examination of the scrotal region, we observed changes in the coloration of hairs with structures in the form of yellowish-white lumpy masses, adhered to the central portion of the hair. Dermoscopy revealed lumpy masses that envelop the hair, some forming white concretions with a morphology that simulated a bare wire (photo 3) and with polarized light, the same characteristic image (photo 4). A diagnosis of palmellin trichomycosis was made, without the need for

additional studies. For treatment, topical clindamycin plus 5% benzoyl peroxide was used for two weeks with clinical cure.

DISCUSSION

TP is a disease of bacterial etiology. In 1951, Crissey demonstrated that the causative agent was not a fungus and identified it as *Corynebacterium tenuis*, which is now known as *Corynebacterium flavesens*.⁶ There are different clinical varieties of this actinobacteria, in this case report we present the flava and rubra variety; the last one interesting for its rarity. Both cases of unusual location since it mostly affects armpits. In a 15-year retrospective study carried out by Bonifaz in 2013, 98% of the cases (55/56) were of the flava variety and only one case of rubra (1.8%), in addition, in 92% of patients the location of the disease was identified. It occurred in the armpits, in the pubic area only two cases (3.6%).² Bonifaz also reported trichomycosis in two body areas simultaneously,

The “bare old wire” sign is one of the many names that have been used to describe the dermoscopic image, there are also reports of the “feather sign,” “skewer sign.”⁵ This is a simple tool that can confirm the suspicion of the pathology, ruling out differential diagnoses.

It is also important to note that palmellin trichomycosis is part of the so-called “Corynebacteriosis Triad”, which includes erythrasma, trichomycosis and punctate keratosis, produced by bacteria of the genus *Corynebacterium*.^{3,7} A 3-year prospective study by

Nark-Kyoung and Beom-Joon demonstrated this association⁶, suggesting evaluating their coexistence when finding a diagnosis of PD.

To conclude, palmellin trichomycosis is an easy-to-manage pathology that usually remains underdiagnosed due to its asymptomatic symptoms or symptoms that go unattended. We believe, living in a tropical country, its incidence should be higher and we invite doctors to report it.

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