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Tufted Hair Folliculitis Decalvans as a Clinical Diagnostic Sign

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Abstract **Original Research Article**

Folliculitis decalvans is a rare condition classified under neutrophilic primary scarring alopecias. Its etiopathogenesis has been linked to scalp colonization, mainly by *Staphylococcus aureus*, and to disruptions in the host's local immune response. Multiple treatment options exist, but none are specific or entirely effective. Oral antistaphylococcal antibiotics are commonly used, though recurrences are frequent. This is a chronic and progressive disease that leads to irreversible sequelae, which underscores the importance of early clinical diagnosis, with tufted hairs being a key diagnostic sign. This case is reported due to its unusual presentation in terms of patient age and sex.

Keywords: Folliculitis Decalvans, Tufted Hairs, Alopecia, Scarring Alopecia, Trichoscopy, Neutrophilic Inflammation.

INTRODUCTION

Folliculitis decalvans is a rare and chronic form of neutrophilic primary scarring alopecia, first described in 1888. It primarily affects young adult males and is characterized by progressive hair loss, often accompanied by pustules, crusts, and intense pruritus. The exact etiology remains unclear, but colonization by *Staphylococcus aureus* and immune dysregulation are considered contributing factors. While several treatments have been explored, including antibiotics and anti-inflammatory agents, recurrence is common and no definitive cure has been established. Recent studies have emphasized the diagnostic value of trichoscopy, particularly the identification of tufted hairs—clusters of multiple hair shafts emerging from a single follicular opening—as a hallmark sign. This article presents a unique case of folliculitis decalvans in an elderly female patient, an uncommon demographic for this condition, and highlights the importance of early clinical recognition using trichoscopic features to improve patient outcomes and prevent irreversible scarring.

MATERIALS AND METHODS

Folliculitis decalvans is a rare entity among primary neutrophilic scarring alopecias, first described in 1888. It mainly affects young men. We present the case of an elderly female patient who consulted for scalp pruritus associated with a two-year history of an alopecic plaque without prior medical treatment.

Clinical Case

A 61-year-old female patient, with no significant medical history but with a son diagnosed with nuchal folliculitis, homemaker, native and resident of Mexico City, presented with intense scalp pruritus of two years' duration. Physical examination revealed a dermatosis on the parieto-occipital scalp region, characterized by an alopecic plaque over 15 cm in diameter, with irregular borders, erythematous coloration, some excoriations, and honey-colored crusts on the surface (Figures 1 and 1.1). }Trichoscopic examination showed diffuse erythema and white scarring areas, multiple groups of at least five hairs emerging from dilated follicular openings (tufted hairs), honey-colored crusts, excoriations, and interfollicular whitish scales (Figure 2).

A histopathological study showed infundibular dilatation, polytrichia, a mild chronic perivascular inflammatory infiltrate predominantly of lymphocytes and plasma cells, and scarring fibrosis in the papillary and reticular dermis (Figure 3).

Treatment was initiated with doxycycline 100 mg orally every 24 hours and topical clobetasol, resulting

in clinical improvement and complete remission of symptoms after 8 weeks (Figure 4).

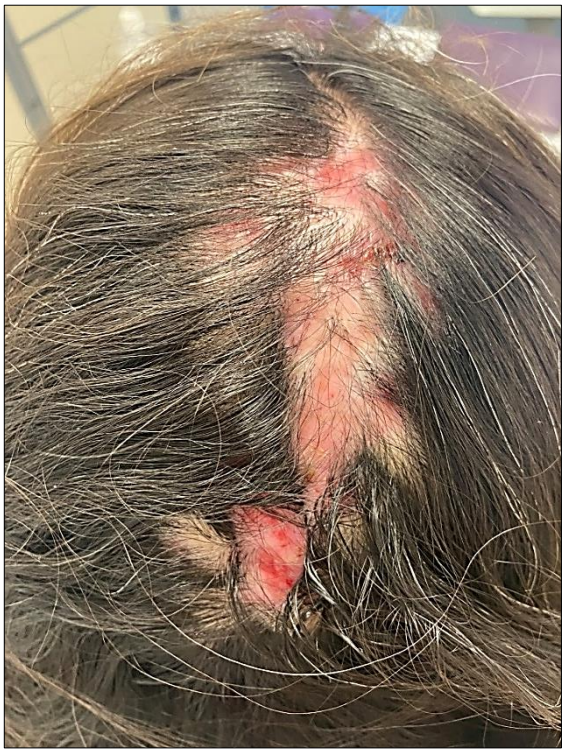

Figure 1: Alopecic plaque in the parieto-occipital region

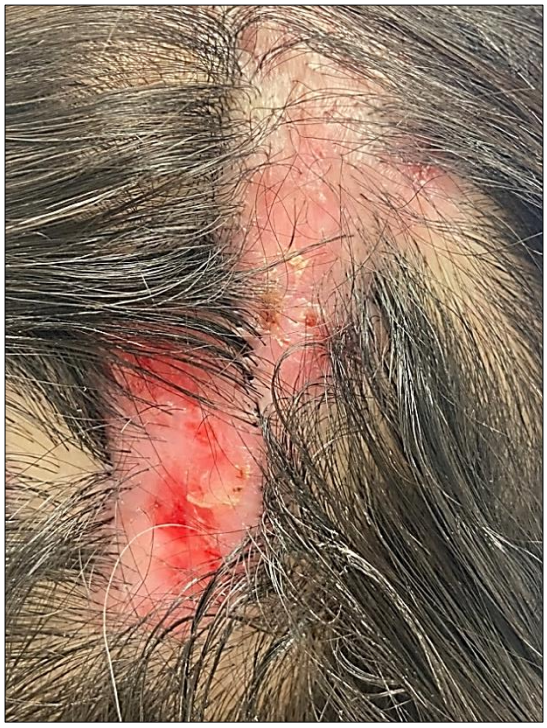

Figure 1.1: Tufted hairs

Figure 2: Trichoscopic image showing a dilated follicular opening with tufted hairs emerging from it, white scarring areas, honey-colored crusts, excoriations, and interfollicular scaling

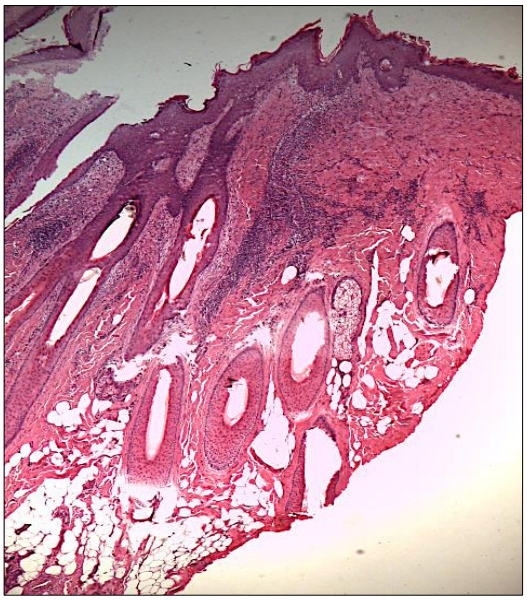

Figure 3: Histopathological study showing infundibular dilatation, polytrichia, mild chronic inflammatory infiltrate predominantly perivascular with lymphocytes and plasma cells, and scarring fibrosis in the papillary and reticular dermis

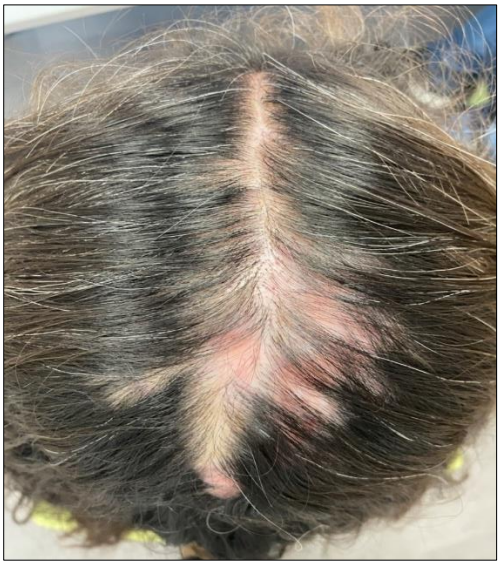

Figure 4: Clinical evolution after 8 weeks of treatment

DISCUSSION

Folliculitis decalvans is one of the primary neutrophilic scarring alopecias, first described in 1888. It predominantly affects young patients, with a slight male predominance.

Although its pathogenesis is not fully understood, colonization of the skin and nasal mucosa by *Staphylococcus aureus*, along with disruptions in the local immune response, are considered potential triggers.

Diagnosis is mostly clinical, with biopsy reserved for uncertain cases. It typically affects the vertex and occipital regions of the scalp, presenting as alopecic plaques with pustules, excoriations, honey-colored and hemorrhagic crusts. Patients may experience pain, bleeding, burning, and pruritus.

Trichoscopic findings vary depending on inflammatory activity. Tufted hairs (5–15 hairs emerging from one follicular opening) are pathognomonic. Other findings include perifollicular erythema, perifollicular hemorrhages, pustules, reddish areas, and perifollicular/interfollicular scales.

S. aureus is frequently isolated in cultures, and most patients are nasal carriers.

Early histopathological stages show infundibular dilation with perifollicular and intrafollicular neutrophilic infiltrate. As the disease progresses, the infiltrate becomes mixed (neutrophils, lymphocytes, plasma cells), extending into the adventitial dermis. In late stages, periadnexal fibrosis predominates.

Treatment includes both topical and systemic options. Good responses have been observed with antistaphylococcal antibiotics (dicloxacillin, amoxicillin-clavulanate, fusidic acid, clindamycin alone or combined with rifampin—the most commonly used due to prolonged remission), broad-spectrum antibiotics (azithromycin), and antineutrophilic drugs (tetracyclines, dapsone). Due to increasing resistance, other therapeutic lines should be considered. Adjuvant topical treatments include fusidic acid, mupirocin, clindamycin, corticosteroids, and tacrolimus.

Emerging therapies include photodynamic therapy, low-dose local radiotherapy, intravenous immunoglobulin, depilatory lasers (Nd:YAG), and biologics.

Differential diagnoses include Brocq's pseudopelade and central centrifugal cicatricial alopecia (CCCA). Other less common causes of tufted hairs include lichen planopilaris, discoid lupus, acne keloidalis, dissecting cellulitis, tinea capitis, and pemphigus.

Prognosis is generally chronic and slowly progressive. Early onset (under 25 years) is associated with more severe forms. Relapse is common after treatment discontinuation.

CONCLUSION

Folliculitis decalvans is part of the neutrophilic scarring alopecias group and represents a therapeutic challenge due to its chronic and progressive nature. Early diagnosis, using its pathognomonic sign, and timely treatment are crucial to limit disease progression and prevent scarring sequelae.

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