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CASE REPORT

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Folliculitis decalvans successfully treated with rifampicin and clindamycin

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ABSTRACT

Folliculitis decalvans (FD) is a rare form of neutrophilic cicatricial alopecia, first described by Quinquaud in 1888. The aetiology of FD is unclear, though *Staphylococcus aureus* infection and immune dysfunction are thought to be significant factors. Folliculitis decalvans primarily affects young to middle-aged adults, with a higher prevalence in men. Clinically, it is characterized by papules, pustules, alopecic patches, crusts, tufted hairs, and erosions, commonly affecting the vertex. Diagnosis is typically based on histopathological examination, though trichoscopy may suffice. Treatment is challenging due to the chronic and relapsing nature of the disease. This report presents a 33-year-old female admitted to the Dermatology Department due to scalp lesions, hair loss, and itching, which had been ongoing for 8 years. Previous treatments with topical anti-inflammatory agents, glucocorticosteroids, and oral antifungals provided temporary relief, but symptoms recurred after discontinuation. On examination, thick yellow scales, inflammation, and pustules at hair follicle openings were observed, along with hair thinning in the parietal region. Videotrichoscopy revealed perifollicular scaling, large hair tufts, and pustules. A culture-confirmed *Staphylococcus aureus*, while mycological tests were negative. Histopathology showed chronic folliculitis with suppuration and fibrosis. The patient was treated with clindamycin and rifampicin, along with topical therapy. A follow-up showed partial improvement, with a resolution of pustules and scales, though hair thinning and scarring persisted. This case underscores the importance of early diagnosis and long-term management to prevent irreversible damage. Regular monitoring is essential due to the potential risk of squamous cell carcinoma.

Forum Derm.

Keywords: cicatricial alopecia, folliculitis decalvans, clindamycin, rifampicin, *Staphylococcus aureus*, alopecia

INTRODUCTION

Folliculitis decalvans (FD) is a rare neutrophilic cicatricial alopecia. In 1888, Quinquaud first described this chronic inflammatory disease [1]. The exact cause of FD remains unclear, but it appears that *Staphylococcus aureus* infection and a dysfunction in the body's immune response are significant contributing factors [2, 3]. Folliculitis decalvans mostly occurs in young and middle-aged adults with a higher prevalence in men [4]. This dermatosis is clinically characterized by papules, pustules, alopecic patches, crusts, tufted hairs and erosions. The most common location is the vertex, followed by the parietal area and occipital area [5]. The histopathological examination is considered the gold diagnostic standard. However, a typical clinical picture together with a trichoscopy assessment can often replace histological examination. Bacteriological and mycological cultures should always be obtained. The differential diagnosis includes mycosis of the scalp, bacterial folliculitis, dissecting cellulitis of the scalp, lichen planus, central centrifugal cicatricial alopecia, and erosive pustular dermatosis of the scalp. The progression of this disease is chronic and relapsing. The therapy of FD is a significant challenge. As the aetiology of FD is unknown, it is difficult to establish a successful and long-lasting therapy. Treatment aims to stop inflammation and prevent additional hair loss. Since *Staphylococcus aureus* and other bacteria seem to play an important role in the pathogenesis of FD, its eradication is one of the major aims of treatment. In reported cases various therapies were

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conducted for example systemic antibiotics (especially rifampicin with clindamycin, doxycycline) [3, 6], isotretinoin [7], dapsone [8], adalimumab [9–11] frequently in combination with topical corticosteroids and antibiotics. Regular monitoring of the patient is necessary as there are reports of squamous cell carcinoma arising within FD [12].

Objective

To present a case of a patient with folliculitis decalvans successfully treated with rifampicin and clindamycin.

CASE REPORT

A 33-year-old female patient diagnosed with Hashimoto's disease was admitted to the Dermatology Department in June 2024 due to skin lesions on the scalp, accompanied by hair loss and itching. The patient reported that the symptoms began approximately 8 years earlier. She had been treated with topical anti-inflammatory and glucocorticosteroid therapies, as well as oral antifungal treatment, which provided improvement. However, the lesions reappeared after the treatment was discontinued. The patient denies any other skin changes. Her mother was diagnosed with psoriasis.

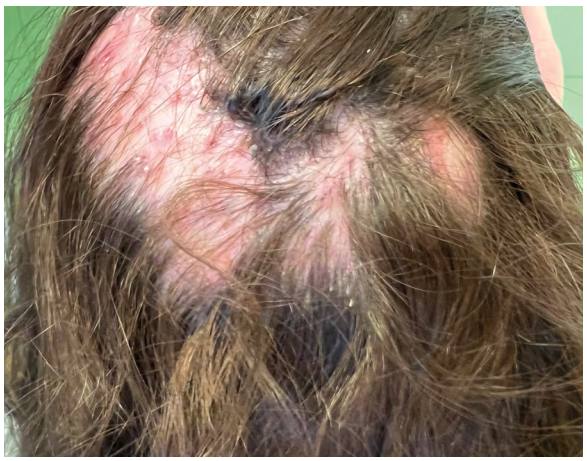

Figure 1. Lesions within scalp before diagnosis folliculitis decalvans

At the time of admission to the department, a physical examination revealed thick yellow scales, inflammation, and pustules at the hair follicle openings. Additionally, there was visible hair thinning in the parietal region of the scalp (Fig. 1). Videotrichoscopy showed perifollicular scaling, large hair tufts, and pustules surrounding the hair follicles (Fig. 2A, B). During hospitalization, laboratory tests were performed, and two biopsies were taken from the scalp. A culture from a pustule at the hair follicle opening was obtained, identifying *Staphylococcus aureus* (*S. aureus*). Additionally, an indirect mycological examination was conducted, involving scrapings from the scalp, hair samples, and pustule contents. The result of this test was negative.

Based on the clinical presentation, FD was suspected, which was confirmed by the histopathological findings (chronic folliculitis with suppuration and fibrosis, with preserved areas showing hyperkeratosis) (Fig. 3, 4).

Antibiotic therapy was introduced for the patient — clindamycin 300 mg twice daily and rifampicin 300 mg twice daily (off-label). Additionally, topical treatment was started (10% salicylic oil and Octenisan cleansing emulsion).

A month later, the patient returned to the outpatient clinic for a follow-up visit. The patient reported feeling well, with good tolerance of the treatment and no adverse effects.

The local examination showed progress, including a partial reduction in erythema and complete resolution of pustules and scales (Fig. 5). However, hair thinning and scarring persisted in the parietal, temporal, and occipital regions. Continuation of the treatment was recommended for up to 10 weeks.

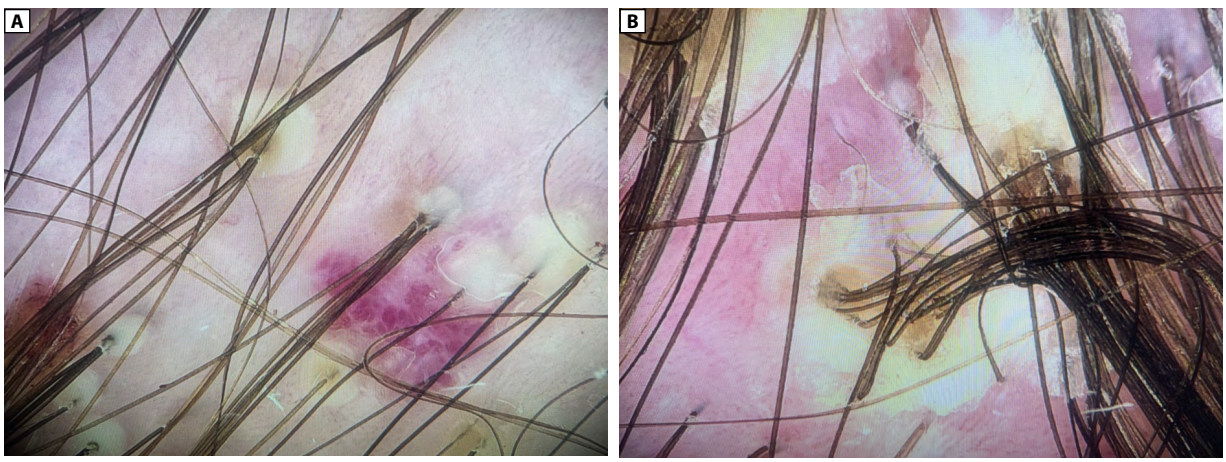

Figure 2A, B. Videotrichoscopy lesions within the scalp

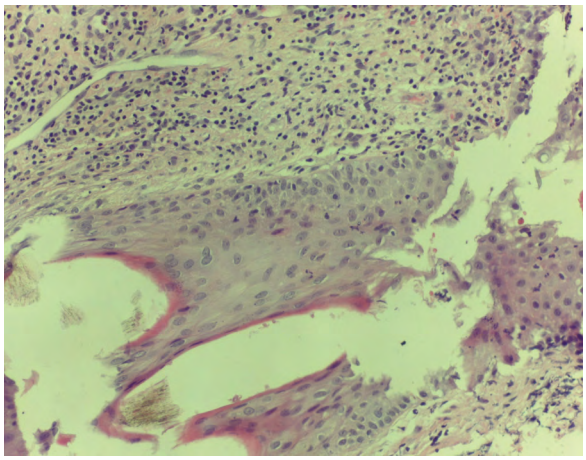

Figure 3. Histopathological image, magnification ×200, longitudinal section; top — purulent inflammatory infiltrate; neutrophilic inflammatory infiltrate extending into the hair follicle

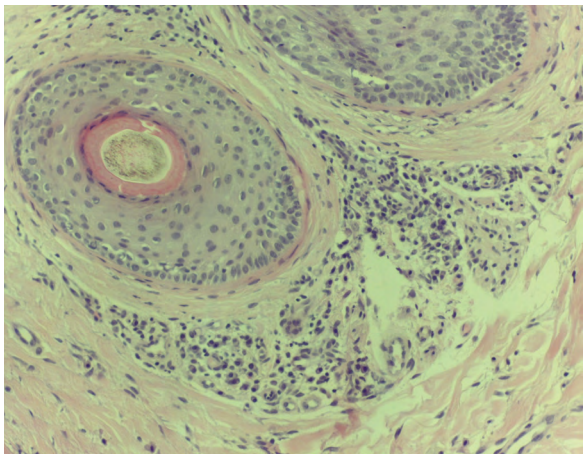

Figure 4. Histopathological image, magnification ×200, transversal section. Hair follicle with shaft and adjacent inflammatory infiltrate

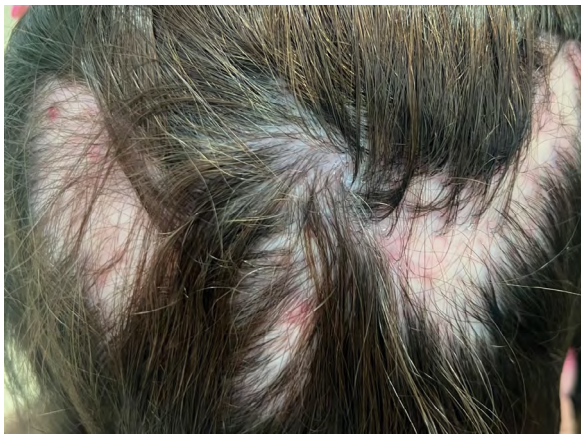

Figure 5. Lesions within the scalp during treatment

DISCUSSION

Folliculitis decalvans are categorized as primary neutrophilic scarring alopecia, with a mild predilection for man. This disease accounts for 11% of all primary cicatricial alopecias [2]. The average age of onset for FD varies between 35 and 40, depending on the source [3, 13]. However, the patient described here is younger. Clinically, FD is characterized by scarring alopecic patches, follicular pustules, crusts, and tufted hair. Pain, itching and burning may occur [2, 14]. The patient reported significant itching. The occurrence of familial cases of FD further supports the hypothesis of a genetic predisposition [3, 15, 16]. The family history of the patient was negative for FD.

Previously, it was believed that *S. aureus* played a primary role in the pathogenesis of the disease. In numerous studies, *S. aureus* has been isolated from pustules in patients with FD [17]. Recent research suggests that *S. aureus* functions more as an opportunistic pathogen rather than a specific one in FD, as the isolated strains do not exhibit distinct pathogenicity [17, 18]. In the case of the present patient bacteriological and mycological cultures were taken. Mycological was negative but bacteriological analysis was positive for *S. aureus.*

In 2004 Paquet et al. [8] described the case of two patients who were treated with dapsone at a daily dose of 75 and 100 mg, for periods of 4 to 6 months. Both patients experienced a gradual improvement in postural folliculitis after 1–2 months of treatment. The moderate dosage was well tolerated and effective. No significant adverse effects of dapsone were evidenced. After dapsone withdrawal, a moderate relapse of the disease with pruritus and folliculitis occurred after a few weeks in both cases. A long-term and low dose (25 mg daily) helps to prevent relapses.

In 2019 Rambhia et al. conducted a study *Updates in therapeutics for folliculitis decalvans: a systematic review with evidence-based analysis* [19]. The effectiveness of FD treatment was evaluated in 20 studies involving a total of 282 patients. In one of these studies, it was described that 15 patients (100% of patients in this study) who underwent a 10-week regimen of clindamycin and rifampicin achieved the longest average disease remission, lasting about 7 months [3]. The longest time of remission was compared to doxycycline (4.8 months, 90% improvement) and azithromycin (4.6 months, 100% improvement). In another study conducted in 1999 [2], a group of 18 patients presenting FD at the Oxford Hair Clinic, a treatment regimen was introduced — combining oral rifampicin and oral clindamycin for 10 weeks. Out of these patients, 10 responded well to the treatment, with no signs of recurrence observed within 2 to 22 months after a single treatment cycle. Additionally, 15 of 18 patients achieved a positive outcome after undergoing

two or three courses of the treatment. One patient experienced a rash as a side effect of clindamycin. Gomez et al. [13] observed a 91% response rate in moderate and severe cases using tetracyclines but a combination of rifampicin and clindamycin was the most effective in refractory cases, achieving a 90.5% response rate and a longer duration of response in cases that were initially unresponsive to tetracycline therapy. In contrast, a retrospective study by Tietze et al. [7] demonstrated that 8 out of 12 patients treated with a 10-week course of clindamycin and rifampicin experienced a relapse, while 2 patients showed no clinical response. They also reported relapse rates with ciprofloxacin or doxycycline (78%) and dapsone (57%). Additionally, Tietze et al. [7] showed that a 5–7 months course of isotretinoin led to disease lasting 4–24 months in 9/10 patients, with 3 patients requiring low-dose maintenance therapy.

In 2022 Melian-Olivera et al. conducted a study about topical dapsone of FD [20]. The study was conducted on 14 patients who used 5% gel with dapsone for about 30 months (7–54 months). Before starting the medication, the median number of flareups was 0.13 per month, after the introduction of Capone, the frequency dropped to 0.03 flareups per month. However, in 2023 Trüeb et al. [21] referred to the study, indicating that in their practice, the attempt to treat with topical dapsone proved ineffective, leading to worsening and exacerbation of the condition. The results from the 2022 study, as they suggested, may be attributed to the small sample size and the concurrent use of other therapies. In 2019 Alhameedy and Alsanti [22] described a case about 54 female patients where attempts to treat FD with clindamycin, rifampicin, acitretin and isotretinoin were unsuccessful. The patient started adalimumab treatment, and after 3 months, a marked remission of inflammation was observed. Additionally, 3 cases of FD treated with adalimumab have been reported in the literature [23, 24]. All had previously failed various treatments but showed excellent responses to subcutaneous adalimumab, with sustained remission observed after 2–3 months of therapy.

In the described patient, the local examination revealed progress, with partial reduction in erythema and complete resolution of pustules and scales. However, hair thinning and scarring remained in the parietal, temporal, and occipital areas. This case underscores the importance of early diagnosis and long-term management to prevent irreversible damage.

Article information and declarations

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Author contributions

Both authors have equal contributions.

Conflict of interest

The authors have no conflicts of interest to declare.

Ethics statement

All authors have been personally and actively involved in substantial work leading to the paper and will take public responsibility for its content. The paper reflects the authors' own case report.

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Supplementary material

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