Chapter 52
Keloids on the Scalp

Piotr Brzeziński, César Bimbi, and Katarzyna Borowska

A 44-year-old man presented with keloids. The patient reported multiple nonpruritic scalp abscesses for the last 10 years. He also complained of intermittent fever and joint pain. The lesions often oozed a serosanguinous discharge and bled occasionally. The abscesses were drained several times. Moreover, the patient was treated with several antibiotics and prednisone without significant improvement. Family history was negative. He did not take any medications or supplements.

On physical examination, flesh-colored, tender, fluctuant nodules with scarring alopecia on the scalp were noted (Fig. 52.1a, b). The nodules formed intercommunicating sinuses that expressed a serosanguinous discharge when palpated. No nuchal lymph nodes were palpable. Fungal and bacteriological cultures were negative. On trichoscopy, broken hair shafts of variable length, black dots, yellow dots and 3D yellow dots (soap bubble), empty follicular openings, peri- and interfollicular scales, and erythema (Fig. 52.2a, b). In histopathology, a superficial and deep perifollicular suppurative and granulomatous infiltrate around a cystically dilated, partially disrupted hair follicle was observed. Gram-positive cocci within the hair follicle were presented.

P. Brzeziński (✉)
Department of Physiotherapy and Medical Emergency, Faculty of Health Sciences, Pomeranian Academy, Slupsk, Poland

Department of Dermatology, Provincial Specialist Hospital in Slupsk, Ustka, Poland

C. Bimbi
Brazilian Society of Dermatology, Porto Alegre, Brazil

K. Borowska
Department of Histology and Embryology with Experimental Cytology Unit, Medical University of Lublin, Lublin, Poland

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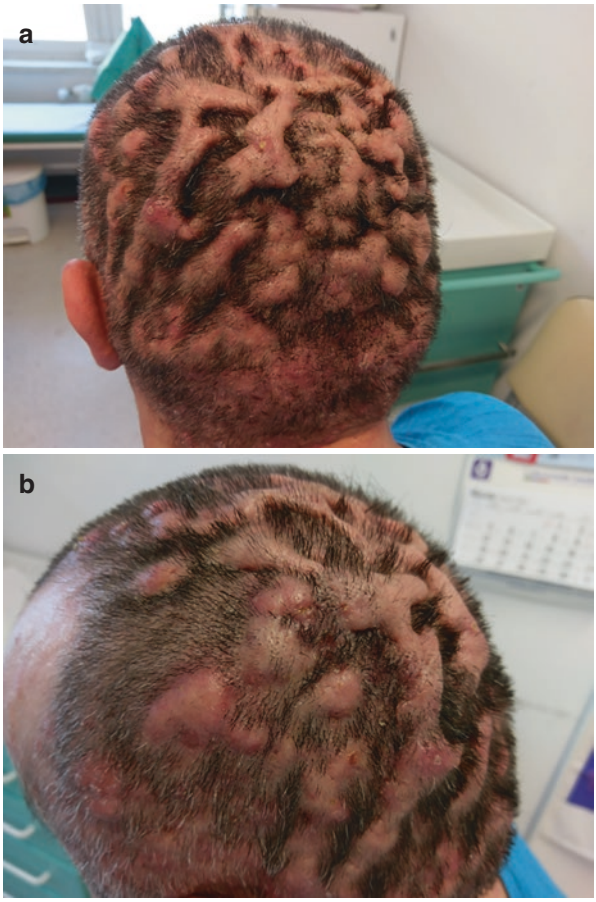

Fig. 52.1 (**a**, **b**) A 44-year-old man with multiple nodular lesions on the scalp. Multiple purulent. Erythematous, interconnecting plaques, some boggy with dried and yellow crusts on the scalp are presented

Based on the case description and the photograph, what is your diagnosis?

Differential Diagnoses

1. Acne keloidalis.
2. Dissecting cellulitis.
3. Folliculitis decalvans.
4. Pseudopelade of Brocq.
5. Discoid lupus erythematosus.
6. Kerion.

Diagnosis

Dissecting cellulitis.

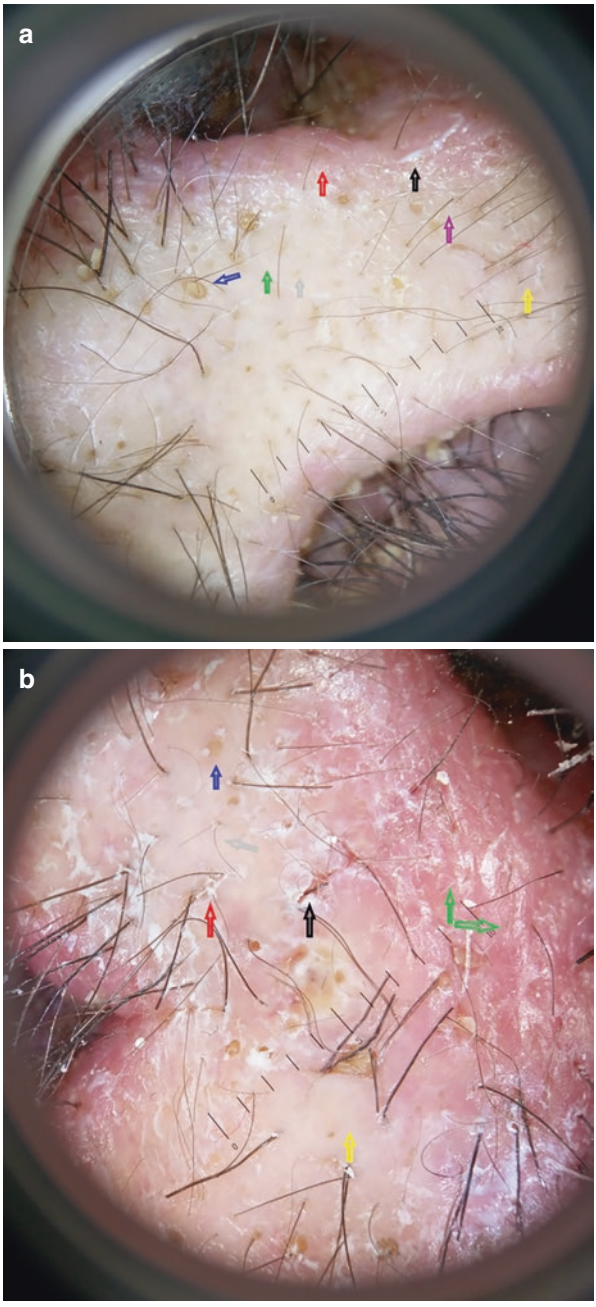

Fig. 52.2 Trichoscopy: (**a**) "3D" yellow dot (blue arrow), yellow areas (green arrow), diffuse erythema (red arrow), short regrowing hairs (yellow arrow), follicular pustules (black arrow), empty follicular openings (gray arrow), exclamation mark hair (violet arrow); (**b**) "3D" yellow dot (blue arrow), amorphous area (yellow arrow), diffuse erythema (green arrows), perifollicular scales (red arrow), short regrowing hairs (gray arrow), skin clefts with emergent hairs (black arrow)

Discussion

Dissecting cellulitis (DC), also known as perifolliculitis capitis abscedens et suffodiens (Hoffman), manifests with perifollicular pustules, nodules, abscesses and sinuses that evolve into scarring alopecia [1]. DC has been reported worldwide. However, the incidence of DC is likely under-reported. In the U.S., it predominantly occurs in African American men between 20 and 40 years of age. DC more rarely occurs in other races and women [2]. DC is likely a reaction pattern, as is shown by its varied therapeutic successes and failures [1, 3]. The etiology of DC remains enigmatic. The disease is distinct from hidradenitis suppurativa, which is shown by their varied responses to therapies and their histologic differences. Like hidradenitis suppurativa, DC likely involves both follicular dysfunction and an aberrant cutaneous immune response to commensal bacteria, such as coagulase negative staphylococci [1, 3, 4]. It is described that DC can coexist with keratitis-ichthyosis-deafness syndrome, Crohn disease and pyoderma gangrenosum, arthritis and keratitis [3, 5, 6]. The literature suggests that most cases of DC can be treated effectively. However, the lack of clinical studies regarding DC prevents full understanding of the disease and limits the ability to define a consensus treatment algorithm. Medical therapies include antibiotic soap (chlorhexidine and benzoyl peroxide), dapsone, intralesional triamcinolone, zinc supplements, topical and oral isotretinoin, oral antibiotics (tetracycline and doxycycline), and oral corticosteroids. Simple incision and drainage and wide excision with split-thickness skin grafting have been used to treat severe cases when medical therapy has failed [3, 7].

Older therapeutic options include: low dose oral zinc, isotretinoin, minocycline, sulfa drugs, tetracycline, prednisone, intralesional triamcinolone, incision and drainage, dapsone, antiandrogens (in women), topical clindamycin, topical isotretinoin, X-ray epilation and ablation, ablative CO_2 lasers, hair removal lasers (800 nm and 694 nm), and surgical excision.

Newer therapies include tumor necrosis factor blockers, quinolones, macrolide antibiotics, rifampin, alitretinoin, metronidazole, and high dose zinc sulphate (135–220 mg TID). Isotretinoin seems to provide the highest chance of remission, but the number of reports is small, dosing schedules variable, and the long term follow up beyond a year is negligible; moreover, treatment failures have been reported. Tumor necrosis factor inhibitors can succeed when isotretinoin fails, either as monotherapy, or as a bridge to aggressive surgical treatment, but long term data is lacking. Non-medical therapies noted in the last decade include: the 1064 nm laser, photodynamic therapy, and modern external beam radiation therapy [8–10].

Key Points

- Dissecting cellulitis is a chronic inflammatory dermatosis that results in disfiguring and painful, purulent lesions.
- Isotretinoin seems to provide the highest chance of remission.

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