

# Chapter 5

## A 30-Year-Old Man of African Descent with Keloid-Like Plaques on the Nape of the Neck



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A 30-year-old man of African descent presented with a two-year history of progressively growing skin lesions on the nape of the neck. The patient complained of itching and burning sensation which increased after the haircuts. Moreover, occasional bleeding and pustular discharge were reported. The patient reported having frequent closely shaven haircuts. There was no fever, bone pain, or discharging swellings in the axilla. No history of acne vulgaris was reported. There was no family history of a similar condition.

A physical examination revealed firm keloid-like plaques with hairs loss on the nape of the neck (Fig. 5.1). On trichoscopy, peripheral hyperpigmentation and white areas with the absence of hair follicle openings in the central part of the keloidal plaques were observed (Fig. 5.2).

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

### Differential Diagnoses

1. Folliculitis keloidalis nuchae.
2. Dissecting cellulitis of the scalp.
3. Folliculitis decalvans.
4. Kerion.

### Diagnosis

Folliculitis keloidalis nuchae.

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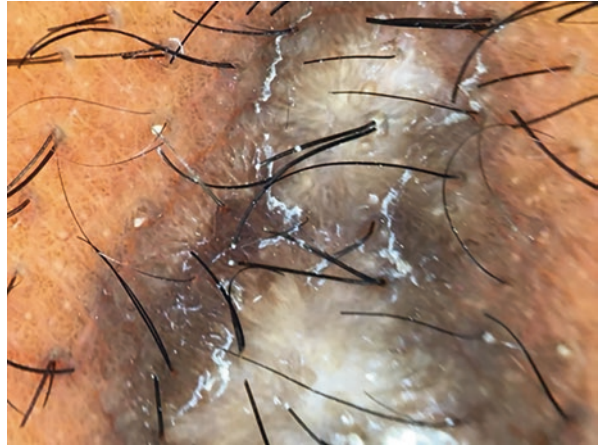
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**Fig. 5.1** A 30-year-old man with keloid-like plaques on the nape of the neck



**Fig. 5.2** Trichoscopy with the presence of peripheral hyperpigmentation and central white areas with the absence of hair follicle openings ( $\times 20$ )



## Discussion

Acne keloidalis nuchae, also known as folliculitis keloidalis nuchae, is a recurrent chronic follicular inflammation subsequently resulting in scarring alopecia [1]. The etiopathogenesis remains unclear. The role of androgens, obesity and genetic predisposition is hypothesized. Ingrown hair, trauma, infections, close shave haircuts,

friction from collars and helmets are suggested as trigger factors [1–3]. Young men of African descent with tightly curled hair are most commonly affected. Clinically, in the early stages acne keloidalis nuchae is characterized by the presence of single or multiple smooth dome-shaped, firm, follicular papules and pustules progressing to keloid-like plaques associated with hair loss in later stages. In chronic, recurrent disease abscesses and purulent fistulas may be observed. Lesions occur mainly on the neck and occipital area of the scalp [4]. Pain, itching and burning sensation as well as bleeding are reported. Diagnosis of acne keloidalis nuchae is usually established based on clinical presentation. Trichoscopy at the early stage shows perifollicular pustules with peripilar white halo and dome-shaped often hyperpigmented papules while in advanced stages tufted hairs, loss of follicular openings and fibrotic white areas are seen. In histological examination, nonspecific granulation tissue with histiocytes, giant cells, and plasma cells are detected [5]. Traditional management of acne keloidalis nuchae focuses on preventing disease progression with avoidance of mechanical irritation and the use of antimicrobial cleansers to prevent secondary infection [6]. Pharmacological therapy includes topical and intralesional corticosteroids, topical and systemic antibiotics and retinoids. Severe and recalcitrant lesions may be amenable to surgery with or without postsurgical radiotherapy, electro- and cryosurgeries and laser therapy [6].

The differential diagnoses for the presented patient included folliculitis decalvans, dissecting cellulitis and tinea capitis profunda.

Folliculitis decalvans is a type of primary neutrophilic cicatricial alopecia [5]. It is commonly seen among middle-aged men of African descent but the disease also occurs in Caucasians [7]. Clinically, the disease is characterized by follicular papules and pustules with tufted hairs. Subsequently scarring is observed [8]. In folliculitis decalvans, lesions are not restricted to the occipital area and they are commonly observed on the vertex region. Moreover, other hair bearing areas such as beard, neck, axillary and pubic region may be affected [5].

Dissecting cellulitis is a primary neutrophilic scarring hair loss which almost exclusively occurs in young men of African descent [5]. The disease may occur alone or as a component of the follicular occlusion tetrad (hidradenitis suppurativa, acne conglobate, dissecting cellulitis and pilonidal cyst) [8]. Dissecting cellulitis presents as follicular papules and pustules which progress to form deep seated fluctuant nodules, abscesses and large sinuses leading to scarring alopecia. The vertex and occipital areas are most commonly affected [8].

Kerion is a form of inflammatory tinea capitis mainly observed in the prepubertal population [9]. It presents as a painful, crusty carbuncle-like boggy plaque with subsequent scarring. It usually occurs as a solitary lesion, most commonly on the occipital area [10].

Based on the patient's history and clinical presentation, the diagnosis of acne keloidalis nuchae was established. The patient was treated with intralesional corticosteroids and oral doxycycline. The avoidance of frequent close hair shaving, tight collars and helmets was recommended.

### Key Points

- Acne keloidalis nuchae occurs mainly in young men of African descent.
- The disease is characterized by the presence of follicular papules and pustules progressing to keloid-like plaques associated with hair loss.
- The neck and occipital area are most commonly affected.

### References

1. Ogunbiyi A. Acne keloidalis nuchae: prevalence, impact, and management challenges. *Clin Cosmet Investig Dermatol*. 2016;9:483–9.
2. Ogunbiyi A, Adedokun B. Perceived aetiological factors of folliculitis keloidalis nuchae (acne keloidalis) and treatment options among Nigerian men. *Br J Dermatol*. 2015;173(Suppl 2):22–5.
3. Matsunaga AM, Tortelly VD, Machado CJ, Pedrosa LR, Melo DF. High frequency of obesity in acne keloidalis nuchae patients: a hypothesis from a Brazilian study. *Skin Appendage Disord*. 2020;6(6):374–8.
4. East-Innis ADC, Stylianou K, Paolino A, Ho JD. Acne keloidalis nuchae: risk factors and associated disorders – a retrospective study. *Int J Dermatol*. 2017;56(8):828–32.
5. Kanti V, Rowert-Huber J, Vogt A, Blume-Peytavi U. Cicatricial alopecia. *J Dtsch Dermatol Ges*. 2018;16(4):435–61.
6. Maranda EL, Simmons BJ, Nguyen AH, Lim VM, Keri JE. Treatment of acne keloidalis nuchae: a systematic review of the literature. *Dermatol Ther*. 2016;6(3):363–78.
7. Ross EK, Vincenzi C, Tosti A. Videodermoscopy in the evaluation of hair and scalp disorders. *J Am Acad Dermatol*. 2006;55(5):799–806.
8. Fanti PA, Baraldi C, Misciali C, Piraccini BM. Cicatricial alopecia. *G Ital Dermatol Venereol*. 2018;153(2):230–42.
9. Stein LL, Adams EG, Holcomb KZ. Inflammatory tinea capitis mimicking dissecting cellulitis in a postpubertal male: a case report and review of the literature. *Mycoses*. 2013;56(5):596–600.
10. John AM, Schwartz RA, Janniger CK. The kerion: an angry tinea capitis. *Int J Dermatol*. 2018;57(1):3–9.