

## Case Report

# Acne keloidalis nuchae in a Caucasian woman

Ali Akbar Akaberi, Parichehr Kafaie, Mohamad Taghi Noorbala\*, Fariba Binesh, Hossien Hajihossieni

Dermatology Department, Shahid Sadoughi University of Medical Sciences- Yazd, Iran

**Abstract** Acne keloidalis is a chronic inflammatory process involving the hair follicles of the nape of the neck and leading to hypertrophic scarring papules and plaques. Review of the literature shows that this process occurs only in males after puberty, especially in negroes.

We, here, report a 31-year-old Caucasian woman who had hypertrophic papules in the nape of her neck since 10 years and histopathological examination confirmed it is as acne keloidalis. This is a rare case hitherto unreported in Caucasian females.

**Key words**

Acne keloidalis nuchae

### Introduction

Acne keloidalis, also known as folliculitis keloidalis is a chronic inflammatory process of the hair follicles of the nape and leading to hypertrophic scarring as papules and plaques. It occurs in males after puberty and is most frequent in 15-25 years old black males. Most of the patients have or have had significant acne.<sup>1</sup>

Histological findings reveal chronic perifollicular inflammation process that eventually leads to destruction of follicular components and scar formation. Observation of foreign body granulomas surrounding fragments of hair, had led to the suggestion that the process begins with penetration of cut hair into the skin. Continuous friction, microbial factors and hair cutting may play some role in the formation of lesions.

### Case report

We report a case of 31-year-old white woman who had hypertrophic papules in the nape of her neck for the last 10 years. Some of the lesions were ulcerated in the center and had patchy cicatricial alopecia (**Figure 1**). She had no evidence of androgen excess, and had just a history of mild to moderate acne. After clinical examination, a punch biopsy was performed which showed the pathological signs of acne keloidalis (**Figure 2**).

Therapeutic measures such as oral, topical and intralesional steroids, cryotherapy and isotretinoin therapy were tried but partial success was seen with cryotherapy plus intralesional steroids (**Figure 3**)

### Discussion

Acne keloidalis, also known as folliculitis nuchae, is a form of chronic scarring folliculitis characterized by fibrotic papules and nodules of the neck and the occipital area. It particularly affects men of African descent<sup>1,2</sup> and is rarely ever seen in women, and is never reported in Caucasian women. There has been

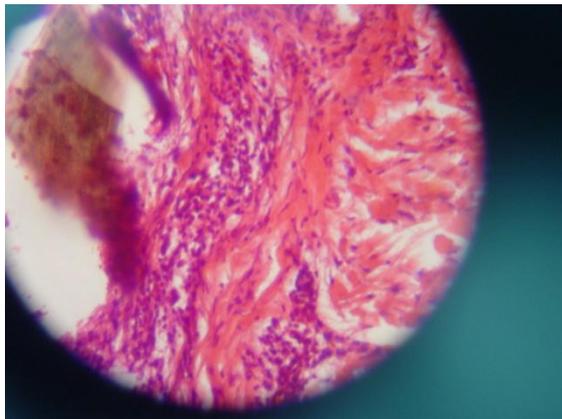
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**Address for correspondence**

Dr. Mohamad Taghi Noorbala, MD,  
Associate Professor of Dermatology  
Shahid Sadoughi University of Medical Sciences,  
Yazd-Iran  
Fax: # 98 (351) 5256555, Ph:# 98 (351) 5250094-6  
Email: mtnoorbala@gmail.com



**Figure 1** Keloidal papules on the nape of neck.



**Figure 2** Mononuclear infiltrate surrounding the hair follicle.



**Figure 3** Partial improvement after cryotherapy and intralesional steroid injection.

just two reports of acne keloidalis nuchae in black women.<sup>3,4</sup> It most often occurs in males after puberty and is most frequent among the ages of 14-25 years.

Many patients have, or have had, significant acne, and a patient with previous hidradenitis has been reported.<sup>1</sup> No specific organism can

be isolated, although *Staphylococcus aureus* is often isolated.<sup>5,6</sup> Although friction from the collar is often incriminated; the evidence is unconvincing.<sup>1,5</sup> The location on skin which is often closely shaven, and the observation of foreign body granulomas surrounding fragments of hair, has led to the suggestion that the process begins with penetration of cut hair into the skin, as in pseudofolliculitis.<sup>7</sup> However, Brauner of the US Army<sup>8</sup> did not report this condition despite the persistence of close-shaven hairstyles among soldiers, and he pointed out that the ingrowth of hair could well be secondary to the scarring. Whether the initial event is pseudofolliculitis, bacterial folliculitis or some other process, there is significant individual predisposition especially as regards the severity of the scarring.

Associated keloids in other sites have not been reported, and the process is regarded as hypertrophic scarring rather than true keloid.<sup>1</sup>

Follicular papules or pustules, often in irregularly linear groups, develop on the nape of the neck just below the hair line. Less often, they extend upwards into the scalp. The early inflammatory stage may be inconspicuous, and the patient may first be aware of the hard, keloidal papules that follow the folliculitis. The papules may remain discrete, or may fuse into horizontal bands or irregular plaques. In other cases, the inflammatory changes are persistent and troublesome, with undermined abscesses and discharging sinuses.

Regarding the treatment, bacterial infection should be treated if present, and antiseptics may help to reduce further or secondary infection. Avoidance of closely shaven hair on the back of the scalp may be advised. Intralesional steroids may reduce scarring and inflammation. Oral steroids prescribed for another condition helped, but long-term treatment is unlikely to be justified.<sup>1</sup> In general, medical treatment is disappointing,

and in troublesome cases the affected area may be excised and grafted, excised and allowed to heal by secondary intention, or treated with a carbon dioxide laser<sup>9</sup> and again allowed to heal by secondary intention. Surgery followed by radiotherapy has also been advocated previously.

The condition is extremely chronic and new lesions may continue to form at intervals for years.

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