

# Acne Keloidalis Nuchae in a White Woman

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## Abstract

Acne keloidalis is a chronic inflammatory process that involves hair follicles of the nape of the neck and leads to hypertrophic scarring. In all references, it is noticed that this process occurs only in males after puberty and is especially seen in the black race. In this case, we report a 31-year-old white woman who had hypertrophic papules in the nape of her neck since 10 years ago and in pathological examination, the diagnosis of acne keloidalis was confirmed. (*Iran J Dermatol* 2009;12:69-70)

**Keywords:** acne keloidalis nuchae, female, hair follicle, woman

## Case Report

This is a report of a 31-year-old caucasian woman who had hypertrophic papules in the nape of her neck since 10 years ago. Some of the lesions were ulcerated in the center and the lesions caused cicatricial alopecia in some areas. She had no evidence of androgen excess, and just gave a history of mild to moderate acne (Figure 1).

After clinical examination, a punch biopsy was taken which showed dense hypertrophic scar tissue and a patchy perivascular infiltrate of plasma cells compatible with diagnosis of acne keloidalis (Figure 2).

Therapeutic measures such as oral and topical steroids, intralesional steroid injection, cryotherapy and isotretinoin therapy were tried but only little regress was seen with cryotherapy plus intralesional injection of steroid.

## Discussion

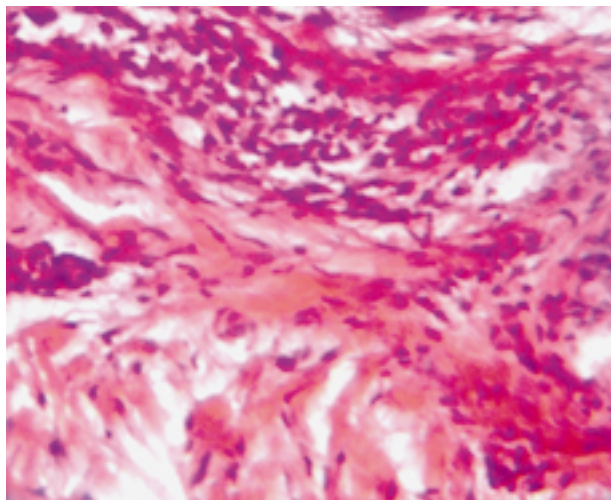
Acne Keloidalis, also known as folliculitis nuchae, is a form of chronic scarring folliculitis characterized by fibrotic papules and nodules of the neck and the occiput. It particularly affects men of African descent<sup>1,2</sup> and is rarely ever seen in women. It has

never been reported in Caucasian women; however, there has just been two reports of Acne keloidalis nuchae in black females<sup>3,4</sup>. It most often occurs in males after puberty and is most frequent between the ages of 14 and 25.

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



**Figure 1.** Hypertrophic papules in the nape of the neck.



**Figure 2.** Histopathological view: massive fibrosis with plasma cell infiltration (H&E X10).

isolated, although *staphylococcus aureus* is often isolated. Although friction from the collar is often incriminated, the evidence is unconvincing<sup>5,6</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> had no experience of the condition despite the persistence of close-shaven hairstyles among soldiers, and he pointed out that the ingrowing 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 regarding the severity of the scarring process.

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

Follicular papules or pustules, often in irregular 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 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.

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

Bacterial infection should be treated if present, and antiseptics may help to reduce further or secondary infection. Patients may be advised against closely shaving hair on the back of the scalp. Intralesional steroids may reduce scarring and inflammation. Oral steroids prescribed for other conditions have 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.

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