ACNE KELOIDALIS

Acne keloidalis, or acne keloidalis nuchae (AKN), refers to the keloid-like lesions occurring on the occiput or nape, primarily in young African-American men, with only a few women having the condition. Development occurs in a window between puberty and 50 years of age.

The term acne keloidalis is a misnomer:

- Keloidal collagen is usually not present in this disease.
- AKN is not a variant of acne vulgaris.

The cause of AKN is unknown. Tight collared shirts, football helmets, hygienic practices, and habitual picking have all been proposed, but there is no evidence to prove these theories. The pathogenesis also remains speculative:

- Benign chronic folliculitis.
- Autoimmune process:
    - Intrafollicular antigens (Demodex sp, normal fungal and bacterial skin flora, cosmetics, sebum, and/or desquamated keratinocytes) create an inciting inflammatory response.
    - A chronic inflammatory response to hair shaft fragments and degenerating epithelium follows.

AKN presents as enlarging papules and nodules, often coalescing to form one or more large protuberant plaques on the vertex of the scalp and on the nape, along with associated scarring alopecia. The plaques can be firm or soft, and eventually they become disfiguring. The lesions are usually pruritic or intermittently tender.

A biopsy of the lesions generally shows a mixed inflammatory infiltrate, composed of neutrophiles, lymphocytes, plasma cells, histiocytes, and multinucleated giant cells. In the late stage of AKN, a granulomatous inflammation typically occurs with eventual fibrosis. There are generally disrupted hair follicles and scattered hair shafts, surrounded by inflammation or fibrosis. Classic keloid fibers are generally absent. Sebaceous glands are often diminished. PAS stain should be negative for fungal elements.

Treatment options include twice daily application of corticosteroids gel or foam for non-inflamed papules and plaques. For inflamed lesions, topical or systemic antimicrobials may clear the accompanying folliculitis. Sometimes, surgical excision is indicated, while CO2 laser excision and cryosurgeries have been successful in some patients. A fungal infection may be a rare cause for the clinical appearance of AKN; thus, it should be excluded.

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