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Education-Family Physician Corner

Acne Keloidalis Nuchae (Folliculitis Keloidalis)

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Acne Keloidalis Nuchae (AKN) is characterized by multiple follicular-based papules, pustules, nodules, keloid-like, hypertrophic plaques. AKN typically occurs on the posterior occipital scalp and develops almost exclusively in young, dark-skinned males. Early diagnosis of AKN and proper management would have a good outcome, before progressing to ugly untreatable scarring.

A thirty-five-year-old Indian male presented with slightly itching papules with variable pain developed from multiple pimples on the posterior occipital region. The patient was given oral antibiotics (doxycycline) twice daily for four weeks. Thereafter, the patient was given high-potency topical steroids (0.05% clobetasol propionate) twice a day for another two weeks. The large keloidal lesions were treated with cryotherapy for three sessions which resulted in significant lesion regression.

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Acne (folliculitis) Keloidalis Nuchae (AKN) is recognized as chronic, fibrotic papules, nodules and pustules which lead to scarring alopecia at the back of the neck and occiput[1]. It is usually seen as asymptomatic, keloidal plaques; however, patients may have burning pain or stubborn pruritus from either pus or multiple oozing sinuses. It would ultimately affect the patient’s quality of life (QOL) as the scarring is difficult to treat, and it is sometimes seen in obvious locations[2].

The prevalence of AKN is 0.5%; mostly are seen in the dark-skinned individuals of African descent or black Asian, with a male-to-female frequency rate of 20:1; ages ranges from 14 to 25 years[1,3-5].

AKN is either idiopathic or secondary to a direct reaction to hair growth, wearing helmets or irritation from long, curly/frizzy hair trapped between shirt collars and a fat neck. The predisposing factors of AKN are constant irritation from foreign body reaction and advanced fibrosis with low-grade bacterial infections. The physician should be able to differentiate AKN from other common skin lesions, such as impetigo, acne vulgaris, tinea capitis, hidradenitis suppurativa, dissecting cellulitis, pseudopélade of Brocq, keloid, and infectious folliculitis[2]. The diagnosis of AKN is usually made clinically while a biopsy is necessary only in atypical cases. In cases that involve the occurrence of abscesses or pustules, it is necessary to have it drained and sent for culture and sensitivity[3,6].

The aim of this presentation is to report a rare case of AKN in a young patient who had successful outcome after medical treatment.

THE CASE

A thirty-five-year-old Indian male presented with lesions initially manifested as slightly itching papules with variable pain developed from multiple pimples on the posterior occipital region. It grew over six months and had become disfiguring, painful and keloid-like plaques. The patient revealed history of close shaving and chronic rubbing of the area by clothing.

On examination, it was observed that multiple lesions had developed in hair-bearing areas of the skin. The lesions were firm, dome-shaped, follicular-based papules, pustules and plaques measuring between 4-5 mm in diameter. Keloid-like papules had merged to form cluster shape on the posterior of the neck which reached more than 10 cm in diameter. Loss of hair and damaged hair shafts had been seen within and at boundaries of the plaques with purulent discharge and traumatized lesions when the hair was groomed, see figure 1.

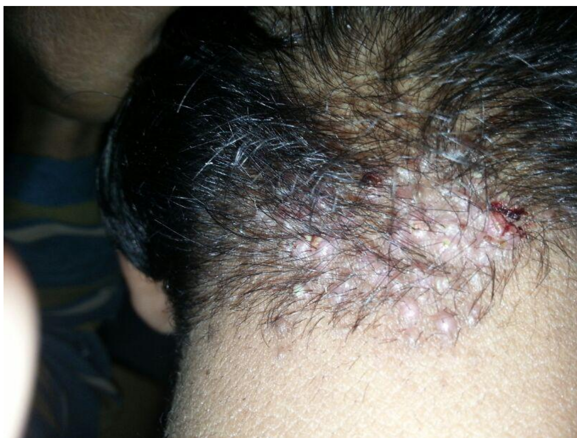

Figure 1: Multiple Papular, Pustular, and Keloid-Like Lesions on the Posterior Occipital Region

The patient was given oral antibiotics (doxycycline) twice daily for four weeks. Thereafter, the patient was given high-potency topical steroids (0.05% clobetasol propionate) twice a day for another two weeks. The large keloidal lesions were treated with cryotherapy for three sessions which resulted in significant lesion regression.

DISCUSSION

Treatment of AKN is challenging and difficult as the lesions often are intractable. Patients might present with history of numerous modalities of previous treatment with varying degrees of success. Early diagnosis and timely treatment of AKN reduces the possibility of long-term keloidal scarring and disfigurements[2].

Our primary goal of treatment was focused on the patient's education. He was advised to discontinue wearing possible offending garments that may cause irritation, such as tight fitting shirts and to instruct his barbers not to shave the posterior part of his hairline. The patient should avoid hair greases or pomades which could interfere with hair growth. Hair in the affected area should be kept long to avoid regrowth into the scalp. The patient is advised

to shampoo with gentle foam washes, such as benzoyl peroxide chlorhexidine or mild keratolytic agents[3].

Treatment of AKN is dependent on the lesion type and disease stage; the treatment could be medical or surgical. The medical could be oral antibiotics and high-potency topical steroids[2,4]. Cryotherapy could be used for large keloidal lesions[7].

Patients presented with large abscesses, or oozing sinuses should be drained, culture and sensitivity should be requested and oral antibiotics and oral prednisolone for 7-10 days duration should be initiated[2].

In advanced, intractable AKN, laser ablation (carbon dioxide laser), intralesional triamcinolone acetonide, 5-fluorouracil or immunotherapy injection (5 to 40 mg/mL) should be considered[8]. Surgical excision of the keloidal-scarring plaque includes a horizontal ellipse with primary closure[9,10].

CONCLUSION

AKN is a chronic, folliculitis disease affect mostly adolescent to adult, dark-skinned males on the nape of the neck or occipital area. An untreated AKN case ultimately leads to disfigurement, hypertrophic scarring, chronic abscesses and hair loss.

Potential Conflicts of interest: None.

Competing interest: None. **Sponsorship:** None.

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