Original article

Keloid acne of the neck: epidemiological studies over 10 years

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Abstract

Background Acne keloidalis nuchae is a chronic condition affecting young adult males of African origin. The frequency of the condition is low but its occurrence has a significant impact on the patient's quality of life.

Patients and methods We performed a retrospective study on data collected over a period of 10 years in the Department of Dermatology and Venereology at the Centre National Hospitalier et Universitaire (CNHU) in Cotonou, Benin. We examined 90 files covering the period from 1993 to 2002 in terms of the epidemiologic, clinical and therapeutic features and course of the disease.

Results The frequency of acne keloidalis nuchae in patients attending the department for consultations over this period was 0.7%. All patients were male, and their mean age was 29 years. The mean period between disease onset and initial consultation in the department was 29 months. Of the patients diagnosed, 82.22% were seen at the stage when the keloid lesions were small. Lesion size did not appear to depend on the duration of the disease. The mean duration of follow up for the 34 patients reviewed was 22 weeks. In nine cases the lesions had spread and in five cases they had resolved. The treatment proposed depended on the type of lesion, but no effective therapeutic guidelines exist.

Conclusions The study has demonstrated that, once the clinical stage of purely inflammatory lesions has passed, delay in consultation has a negligible effect on the course of the disease, which remains chronic and recurrent. A preventive approach using Information Education Communication (IEC) would be preferable.

Introduction

Acne keloidalis nuchae (AKN) is a chronic disease most commonly seen in young men of African origin. It has an adverse effect on the patient's quality of life because of its unattractive appearance and is by no means an exceptional reason for consultation, but has rarely been the subject of an epidemiologic study.

We studied the epidemiologic, clinical and therapeutic features of the disease, as well as its course, in a series of 90 cases of AKN brought together in the Department of Dermatology and Venereology at the Centre National Hospitalier et Universitaire (CNHU) Cotonou over a 10 year period (1993–2002).

Patients and methods

This was a retrospective, single-center study involving 90 case reports on patients presenting with AKN, brought together at the CNHU in Cotonou from 1993 to 2002. None of the patients underwent additional tests. The diagnosis of AKN was clinical.

Results

Over the period studied, 90 cases of AKN were diagnosed in the department out of a total of 13,422 new patients, i.e. the frequency was 0.7%. All patients with AKN were male. The mean age of the patients was 29 years and 89.88% were below 40 years of age. The mean period between onset of the disease and initial consultation was 29 months.

In clinical terms, 74 patients (82.22%) had small lesions, 33 (36.66%) had large lesions and 11 (12.22%) had inflammatory lesions. The duration of the disease did not appear to be the only factor determining lesion size.

Although the type of lesion is taken into account when selecting medicines, there are no effective therapeutic guidelines. The great majority of patients were given a combination of medicines from several different therapeutic classes, which varied from local antiseptics to corticosteroid infiltrations, given via topical antibiotics, systemic antibiotics, topical corticosteroids, locally applied vitamin A acid and antihistamines. Antiseptic agents were prescribed for 74 patients (82.22%) and local antibiotics for 47 (52.22%).

In relation to the course of the disease, 34 patients out of 90 (37.77%) were reviewed in the department. The mean duration of follow up was 4 months. Out of 34 patients reviewed, the lesions resolved in five patients (14.70%) and spread in nine (26.47%).

Discussion

From January 1993 to December 2002, there were 90 cases of AKN out of 13,422 new patients, i.e. the frequency of AKN was 0.7%. The prevalence was 0.37% (90 cases out of 26 522 patients overall), which is not consistent with the results obtained by Marcia J. Glenn *et al.*, who reported a prevalence of 0.45% in the black American population,[1] and with those obtained by Alfred L. Knable *et al.*, who found a prevalence of 8.9% in a male population aged from 14 to 27 years, who were players of American football.[2] In the latter study, not only is the age group in question particularly susceptible to the disease, but also football players are obliged to wear a helmet while playing.

All our patients were male. Some authors mention female cases,[3,4] and Paul Kelly estimates the sex ratio to be 20 : 1.[3]

The mean age of our patients was 29 years, with a range of 15 to 56 years.

Paul Kelly reports that the disease is rare before puberty and after the age of 50 years.[3] Our results are consistent with his conclusions: 89.88% of our patients were below 40 years of age.

Trigger factors of AKN have been cited, including shaving or cutting the hair too short, wearing a helmet,[1,2,3] friction from the hand or from the collars of clothes,[2,3] physical or emotional stress[4] and anticonvulsant agents.[3] Certain factors predispose to the disease, including a short, stocky neck[4] and coarse, frizzy hair.[1,4,5] There is no consensus on whether a personal or family history of keloid formation is a predisposing factor. Knable *et al.*[2] were of a different opinion from Kelly[3] and Kantor *et al.*,[4] who thought that a genetic factor was involved. AKN could also be the result of an autoimmune process.[3]

We believe that the size of lesions is far more likely to be influenced by the existence or nonexistence, and the repetition or nonrepetition, of the causes of irritation given above than by the duration of the disease.

The combination of several therapeutic classes is normal because of the intractability of the lesions.[6] In our patients, 82.22% were given a local antiseptic and 47% a local or oral antibiotic. This practice is approved by Mahé, who proposes macrolides or cyclins for first-line treatment,[6] and is consistent with the findings of Knable *et al.*, who reported the presence of *Staphylococcus albus* and *Propionibacterium acnes*.[2] No patient was given oral retinoid, a therapeutic class which Mahé advises against.[6]

In terms of the course of the disease, 34 patients were reviewed (37.77%), and the lesions were found to have resolved in five of these patients and spread in nine. This resistance to treatment, mentioned by several authors,[1,2,5,6] may explain the loss to follow up of patients who, in search of results, become "medical nomads", and also the high number of therapeutic trials reported in the literature.[1,4,5]

As our study was retrospective we were unable to evaluate many parameters.

Conclusions

Our study is valuable in that it lifts a corner of the veil that covers AKN, a chronic disease in black subjects, especially males. It is a distressing disease in terms of appearance and one that is refractory to treatment, but the subject of very few scientific studies. Early therapeutic management makes it possible to reduce its damaging aesthetic effects. If management is late, recourse to surgical treatments seems to be the best solution, at the price of scarring alopecia. The size of the lesions depends on the existence or repetition of irritant factors.

References

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