

The Prevalence Of Acne Vulgaris In Secondary School Students In Yaoundé, Cameroon

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Citation

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Abstract

Acne vulgaris is a common skin condition that leads to scarring and psychological morbidity. Our objectives were to define the prevalence and epidemiology of acne in secondary schools. Over 2 months, 585 adolescent students aged between 10 and 21 years were interviewed and examined. There were 319 (54.5%) girls and 265 (45.5%) boys aged 15.76 ± 0.10 . The prevalence of acne was 59.84%. Acne occurred just before puberty in both sexes. The prevalence was higher in those with a family history of acne. Most subjects had never sought medical advice. The distribution was mainly on the face (95%) followed by the back, shoulders and chest. There were negative feelings in the acne sufferers. The prevalence and morbidity of acne in Cameroon is similar to what is seen elsewhere. Education should highlight the problem and encourage adolescents to seek early medical advice. Early medical attention will improve cosmetic appearance and decrease psychosocial morbidity.

INTRODUCTION

Acne vulgaris is a chronic skin condition which results in post inflammatory hyperpigmentation, scarring, cysts and keloid formation. There are many factors which may influence the prevalence of acne vulgaris. The onset of acne is usually in adolescence, earlier in girls than in boys (^{1, 2}), due to the earlier onset of puberty in girls. Acne resolves by the mid twenties or earlier (³). The peak incidence and severity occur between fourteen and seventeen years in females; and sixteen and nineteen years in males, where 40% and 35% in these age groups are affected respectively (⁴).

The genetic component of acne has been confirmed by the very high incidence in monozygotic twins (⁵). Racial variations have a marked influence on the incidence of acne. Acne is less common in Zambia, Nigeria and Japan (^{6,7}). Ethnicity may predict prevalence and severity (⁸). The other factors that may influence the severity of acne include stress and occupation.

The psychological problems experienced by acne sufferers should be investigated. Social withdrawal is common in patients with acne. It is very necessary to improve peoples understanding of acne. To date no study has been undertaken in Cameroonian secondary schools.

OBJECTIVES

The objectives of the study were to describe the prevalence

of acne vulgaris in secondary school students and the demographic characteristics of these adolescents.

SUBJECTS AND METHODS

Two secondary schools in the city of Yaoundé were selected by random sampling. Students were enrolled after a written consent was obtained from their parents. All students who consented were interviewed using preformed questionnaires and then examined.

Since Yaoundé is the capital city of Cameroon we found students from all the provinces in the country attending schools here. We believe our findings are representative of the adolescent population (in schools) in the country. The study lasted two months.

RESULTS

During the period of 2 months, 585 adolescents were interviewed and examined.

There were 319 (54.50%) females and 266 (45.50%) males. Mean age was 15.76 ± 0.10 , with an age range of 10 to 21 years.

Of the subjects examined, 350 (59.82%) had acne, 165 males and 185 females. The severity was graded using the global grading for acne.

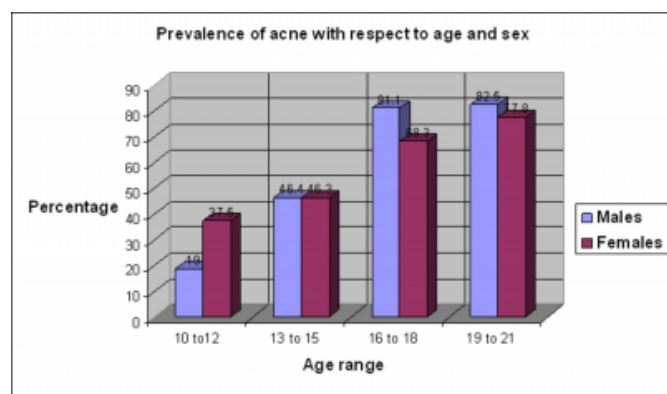
Acne was more frequent in females aged between 10 and 12

years as compared to males; i.e. 37.50% in females and 19.00% in males. There was a statistically high prevalence in females at a younger age (10 years). The prevalence in males increased from 19.00% at age range 10 to 12 years to 82.50% at age range 19 to 20. There was also a significant increase in prevalence in females from 37.50% to 77.5% at ages 19 to 21 years. (fig1)

The age of onset of acne was lower in girls than in boys. Acne was associated with positive family history in 248 (70.86%). Only 9 of the subjects had sought medical advice for their acne; three of which had grade IV acne and 6 had grade III acne.

Figure 1

Figure 1: The prevalence of acne with respect to age and sex.



The common lesions encountered were comedones 350 (100%) papules 350 (100%) pustules 50 (14.3%), excavation 51 (14.50%) post inflammatory hyper pigmentation 142 (40%) scars 51 (14.3%), nodules 40 (11.4%). Cystic lesions were seen in only 3 (0.9%) of subjects.

The attitudes of the acne sufferers varied from indifference to anger. 135 (38.5%) were indifferent, 107 (30.50%) expressed anger, 34 (9.7%) were depressed, 21 (6%) felt inferior to their colleagues who had no acne and 12 (3.4%) had a feeling of hate. Almost all the sufferers believed it was related to only foods. Only a few associated acne to oily skin.

DISCUSSION

The adverse effects of acne have been well established in developed countries. The severity of acne may lead to psychological stress and social withdrawal in acne sufferers. Acne is a very common condition worldwide, even if the prevalence varies from one country to another. This is the first study on the prevalence of acne in Cameroon which provides an insight on the prevalence and perception of acne

in secondary school children. Many researchers have studied acne in adolescents and their findings are consistent, with little variations.

The prevalence of acne in our study was 58.9%, with 62% and 58% prevalence in males and females respectively. Freyre EA et al found a prevalence of less 41.6%, (8) while others found much higher prevalences. Pearl A. et al found acne in 91% of the males and 79% of the female students. (9) Smithard A et al found a prevalence of 50% in English teenagers in Nottingham.(10)

We observed an increase in the prevalence in males from 19% between ages 10 and 12 to 82.50% between ages 19 to 21 years. The same observation was made in females from the same age group from 37.00% to 77.80%. The finding of increase in the prevalence of acne with increase in pubertal maturation has been well documented. (11,12,13)

Acne was more common in girls at a younger age (10-12years). Similar findings have been documented by other authors. (14)

Out of the 350 subjects with acne, 165 were males and 185 were females. This shows that acne is more common in adolescent females than males. Daniel et al and many others found more males affected than females.(1,15) This is contrary to our findings.

The early onset of acne in girls as compared to boys may be explained by the early onset of puberty in girls.

Subjects with a positive family history of acne were associated with a higher prevalence of acne. Of the 350 subjects with acne 248 (70.8%) had a family history of acne, while among those without acne (235) only 37.6% had a positive family history of acne. Other authors have found a significant correlation between the prevalence of acne and family history (5,16,17). Only 9 subjects (2.5%) consulted the doctor for acne. Studies have that few subjects with adolescent acne consult their general practitioner (18).The reason for low rate of consultation has to be determined. Personal observations show that, they seek medical help when they become conscious of their cosmetic appearance.

A majority of the subjects had misconceptions as to the cause of acne. Most believed acne was a result of eating oily foods, and only a few believed it was due to oily skin. Other studies have shown varied beliefs regarding the causes of acne. (8,19)

Using the global grading system for acne vulgaris, grade I acne was the most frequent 48.9% in males and 58.0% in females, severe acne (pustules and nodules) were seen mainly in boys and in the older age group.

A majority of the students had negative feelings about their acne (64.3%). Several studies have demonstrated psychological morbidity in acne sufferers. (20*21*22*23)

CONCLUSION

We conclude that the prevalence of adolescent acne is high in Cameroon. The beliefs are similar to those in the other countries. The age related prevalence is the same as elsewhere with earlier onset in females.

The study demonstrates the necessity for health education. The advantage for early medical attention should be stressed. This will help prevent or decrease psychological morbidity in acne sufferers and improve cosmetic appearance in adolescents and young adults.

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