

Clinico-Epidemiological Profile of Acne in Northern India

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ABSTRACT

Background: Acne Vulgaris is a multifactorial disease affecting the pilosebaceous follicle characterized by comedones, papules, pustules, nodules, cysts and scars. **Methods:** This study was conducted at Department of Dermatology, Venereology & Leprology at Teerthanker Medical College, Moradabad during the period from March 2017 to August 2018. Study was started after approval from Institutional Ethical Committee, Moradabad. 50 patients of acne vulgaris attending to the outpatient department were taken for study. **Results:** The acne was found on face of all 75 (100.0%) subjects, Back of 22 (29.3%), Cheeks of 65 (86.7%), Chest of 16 (21.3%) and Scalp of 3 (4.0%) subjects. Acne vulgaris is usually seen on sites which have high number of pilosebaceous units. In the present study all the subjects (100%) had lesions on face, 23 (7.7%) had lesions on face and back and 7 patients (2.3%) had lesions on face, back and chest. **Conclusion:** Higher incidence was seen in 16-20 years age group and females were more commonly affected. Face is the commonest area involved. Acne aggravates on using cosmetics, due to stress and also has seasonal variation too. However, more clinic-epidemiological studies are required in Indian community for furtherance of the conclusions.

Keywords: Acne Vulgaris, Epidemiology, Clinical presentation.

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INTRODUCTION

Acne vulgaris is a multifactorial disease affecting the pilosebaceous follicle characterized by comedones, papules, pustules, nodules, cysts and scars.^[1] Acne vulgaris is the most common skin problem in adolescents, although lesions can appear as early as age 8. Although acne is more common and more severe in boys than girls, it usually occurs in girls at an earlier age and tends to last longer, sometimes into adulthood.^[2] The etiology of acne vulgaris is multifactorial. Precipitating factors include genetics, exposure to industrial compounds, trauma, rubbing from tight clothing, cosmetics, emotional stress and unfavourable climate. The major factors involved in pathogenesis are an increased sebum production, an abnormality of microbial flora, cornification of the pilosebaceous duct, production of inflammation and increased androgen levels. Commonly, acne is treated with numerous topical and systemic drugs. Although oral antibiotics continue to be the mainstay of acne therapy, but topical therapy has been an essential part of dermatologist regimen for treating acne. Topical therapy is one of the effective modes of treating acne and therapeutic efficacy is also good.^[3]

Acne is the common problem and it has profound psychological impact on patients.^[4] It is necessary to explore the burden of the disease in hospitals with clinical profile and treatment pattern from time to time. So, as to evaluate the clinico-epidemiological study and their outcome with various topical modalities of treatment in Acne Vulgaris and to reduce adverse consequences like scars, the study is required.^[5] Hence, this study was aimed to find out and ascertain different clinical presentations of Acne vulgaris in both the sexes of various age groups and to confirm them with laboratory investigations if necessary.

MATERIALS & METHODS

This study was conducted at Department of Dermatology, Venereology & Leprology at Teerthanker Medical College, Moradabad during the period from March 2017 to August 2018. Study was started after approval from Institutional Ethical Committee, Moradabad. 50 patients of acne vulgaris attending to the outpatient department were taken for study. Individuals aged above 14 years and of both the sexes were included in the study. Patients having grade IV acne or patients having other infectious diseases were excluded from the study. Similarly, pregnant and lactating patients were excluded

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The grading system used was:

Grade-I (mild): Comedones, occasional papules,

Grade-II (moderate): Papules, comedones, few pustules,

Grade-III (severe): Predominant pustules, nodules, sinuses, and,

Grade-IV (cystic): Mainly cysts, abscesses, wide spread scarring.

RESULTS

Table 1: Gender Distribution.

Age groups	Gender		Total
	Male	Female	
15-20 years	21	30	51
	41.2%	58.8%	100.0%
21-25 years	8	11	19
	42.1%	57.9%	100.0%
Above 25 years	1	4	5
	20.0%	80.0%	100.0%
Total	30	45	75
	40.0%	60.0%	100.0%

There were 21 (41.2%) males and 30 (58.8%) females in 15-20 years age group. There were 8 (42.1%) males and 11 (57.9%) females in 21-25 years age group. There were 1 (20.0%) males and 4 (80.0%) females in above 25 years age group.

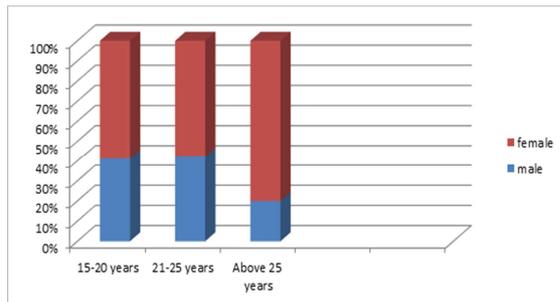


Table 2: Gender ratio of Patients.

Gender	Frequency	Percent
Male	30	40.0%
Female	45	60.0%
Total	75	100.0%

The study population consisted of 30 (40.0%) males and 45 (60.0%) females.

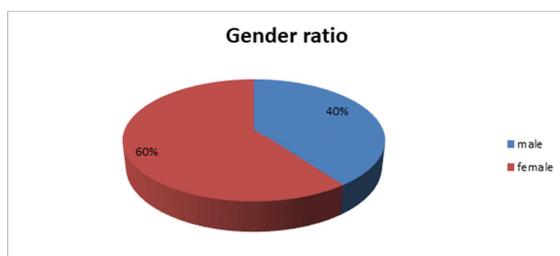


Table 3: Grading of Acne.

Grade of Acne	Frequency	Percent
G1	15	20.0%
G2	25	33.3%
G3	20	26.7%
G4	15	20.0%
Total	75	100.0%

Out of study population, 15 (20.0%) had grade 1 acne, 25 (33.3%) had grade 2, 20 (26.7%) had grade 3 and 15 (20.0%) had grade 4 acne.

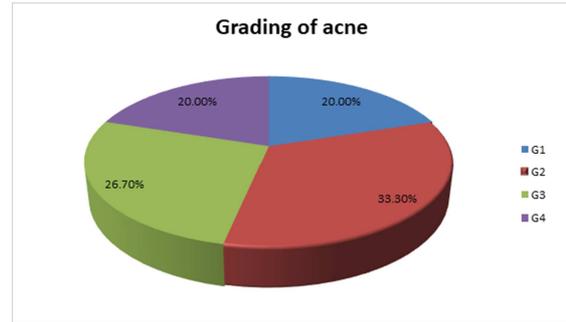
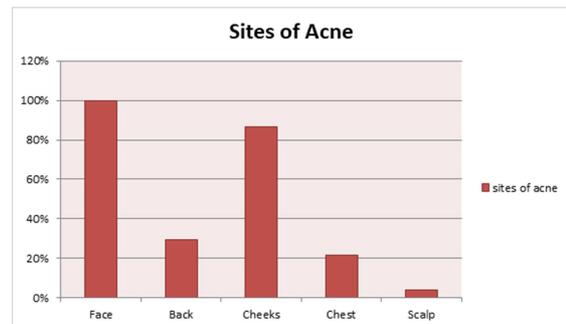


Table 4: Acne distribution according to sites.

Site of acne	Frequency	Percent
Face	75	100.0 %
Back	22	29.3%
Cheeks	65	86.7%
Chest	16	21.3%
Scalp	3	4.0%



DISCUSSION

Acne vulgaris accounted for 7.1% of the total dermatology out patients during the period from December 2016 to November 2018 in the Department of Dermatology, Venereology & Leprology of Teerthanker Mahaveer Medical College, Moradabad (UP)

In Our study 75 patients were included who had acne vulgaris, with the frequency of the disease being 1.068% of patients attending dermatology OPD.

Mean age of the study population was 20.33±4.05 years. In the present study, maximum number of patients belonged to the age group 16-20 years (63%).

The acne was found on face of all 75 (100.0%) subjects, Back of 22 (29.3%), Cheeks of 65 (86.7%), Chest of 16 (21.3%) and Scalp of 3 (4.0%) subjects. Acne vulgaris is usually seen on sites which have high number of pilosebaceous units. In the present study all the subjects (100%) had lesions on face, 23 (7.7%) had lesions on face and back and 7 patients (2.3%) had lesions on face, back and chest.

Acne was found to be more severe in teenagers male rather than female, whereas in older age group females developed most severe form of acne.^[6]

Our study indicated that there was no significant difference in the grade of acne between males and females though grade 2 was more common among males and grade 1 was more common among females. Females have earlier onset of acne as compared to males.^[7]

This might be due to earlier onset of puberty of females but no such age differentiation was recorded in our study.

The acne was found on face of all 75 (100.0%) subjects, Back of 22 (29.3%), Cheeks of 65 (86.7%), Chest of 16 (21.3%) and Scalp of 3 (4.0%) subjects. Acne vulgaris is usually seen on sites which have high number of pilosebaceous units.^[8]

In the present study all the subjects (100%) had lesions on face, 23 (7.7%) had lesions on face and back and 7 patients (2.3%) had lesions on face, back and chest. Cunliffe and Cotterill, observed that lesions occurred mainly over the face (99%) followed by back (60%) and chest (15%) and Adityan et al, face was the most common site involved in all the patients with acne vulgaris (100%) followed by back which was involved in 28.2%. About 20.1% of patients having acne on chest, neck was involved in 9.4% and arms were involved in 10% of subjects.^[3]

CONCLUSION

In present study of 75 patients higher incidence was seen in 16-20 years age group and females were more commonly affected.^[9] Face is the commonest area involved.^[10] Acne aggravates on using cosmetics, due to stress and also has seasonal variation too. However, more clinic-epidemiological studies are required in Indian community for furtherance of the conclusions.

REFERENCES

1. Layton AM. Disorders of the sebaceous glands. In: Burns T, Breathnach S, Cox N, Griffiths C, editors. Rook's Textbook of Dermatology. 8th ed. UK: Wiley-Blackwell; 2010. pp. 42.17–89.
2. Simpson NB, Cunliffe WJ. Disorders of sebaceous glands. In: Burns T, Breathnach S, Cox N, Griffiths C, editors. Rook's Textbook of Dermatology, 7th ed., Oxford: Blackwell Publishing; 2004. p. 43.1.43.75.
3. Adityan B, Thappa DM. Profile of acne vulgaris. A hospital-based study from south India. Indian J Dermatol Venereol Leprol 2009;75:272-8.
4. Tan JKL, Vasey K, Fung KY. Beliefs and perceptions of patients with acne. J Am Acad Dermatol. 2001; 44: 439-445
5. Epstein E. Incidence of facial acne in adults. Dermatol Digest 1968;7:49-58.
6. Rademaker M, Garioch JJ, Simpson NB. Acne in school children : No longer a cause for concern for dermatologists. Br Med J 1989;298:1217-1219.
7. Lucky AW, Biro FM, Huster GA, Morrison JA, Elder N. Acne vulgaris in early adolescent boys. Arch Dermatol 1991; 127:210-216.
8. Supreeti Biswas, Kanchan Kumar Mondal, Indranil Saha, Rathindra Nath Dutta, Saibendu Kumar. Clinico-

epidemiological features of Acne vulgaris: A tertiary hospital – based study. Iranian Journal of Dermatology. 2010; 13 (2).

9. Rothman KF, Lucky AW. Acne vulgaris. Advances in Dermatol 1993;8:347-373.
10. Pandey SS. Epidemiology of acne vulgaris (Thesis abstract VII). Indian J Dermatol 1983;28:109-10.

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