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Original Research

Assessment of cases of Acne Vulgaris - A clinical study

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***ASTRACT*:**
Background: Acne vulgaris (AV) is a common chronic inflammatory condition of pilosebaceous glands. The present study was conducted to assess the cases of Acne vulgaris.
Materials & Methods: 115 patients of Acne vulgaris were assessed for type, site of lesion, grade of acne and postacne hyperpigmentation.
Results: Out of 115 participants, males were 45 and females were 70. Common site was face & chest in 40, face in 30 and chest & back in 25 cases and back in 20 cases. The difference was significant (P< 0.05). Grade I was seen in 10, grade II in 45, grade III in 40 and grade IV in 20 patients. The difference was significant (P< 0.05). Acne grading was mild in 55, moderate in 40 and severe in 20. The difference was significant (P< 0.05).
Conclusion: Authors found that Acne vulgaris was most commonly seen in females than males.
Key words: Acne vulgaris, Pilosebaceous glands, Grade

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INTRODUCTION

Acne vulgaris (AV) is a common chronic inflammatory condition of pilosebaceous glands. Approximately, 9.4% of the world's population is affected by AV, with the highest prevalence among post-pubescent teenagers. AV is considered the most common skin disease globally and ranked as the 8th most common disease worldwide. Skin diseases are unlikely to be life-threatening conditions when not accompanied by systemic involvement, yet they are the fourth leading cause of disability worldwide. The prevalence of acne in adolescents and adults varies among countries and ethnic groups.[2] The clinical and histological features of acne, a chronic inflammatory disease of the pilosebaceous unit, are well described. Acne lesions are typically classified as non inflammatory (open and closed comedones) or inflammatory (papules and pustules). Seborrhoea, or grease production, is also a feature. Scarring is often present following inflammation. The pathophysiological events occurring in acne are also relatively well studied.[3] Lesions start when keratinocytes lining the hair follicle desquamate creating a microcomedone. At puberty increased sebum production creates an environment that can sustain the colonization of Propionibacterium acnes. As P. acnes proliferates, inflammatory and chemotactic mediators are produced, which in turn drive inflammatory processes.[4]

It occurs when hair follicles, which are often called skin pores inside the human skin, become blocked. Small oil gland called sebaceous glands, which are located around hair follicles, produce an oily substance called sebum. The sebum, which normally drains to the surface through the hair follicle, is trapped within the skin pore when the hair follicles become blocked. From this, bacteria known as Propionibacterium acnes eventually attack the sebum, thereby producing skin inflammation and acne.[6] The present study was conducted to assess the cases of Acne vulgaris.

MATERIALS & METHODS

The present study was conducted in the department of Dermatology on 115 patients of both genders. All patients were informed regarding the study and written consent was obtained. The study was approved from institutional ethical committee.

Data related to patients such as name, age, gender etc. was recorded. In all patients, duration of acne, type of skin, site of lesion, grade of acne, post acne hyperpigmentation and acne scars were recorded. Results thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 115		
Gender	**Males**	**Females**
Number	45	70

Table I shows that out of 115 participants, males were 45 and females were 70.

Table II Assessment of site of Acne

Site	Number	P value
Face	30	0.04
Back	20	
Face & Chest	40	
Chest & Back	25	

Table II, graph I shows that common site was face & chest in 40, face in 30 and chest & back in 25 cases and back in 20 cases. The difference was significant (P< 0.05).

Graph I Assessment of site of Acne

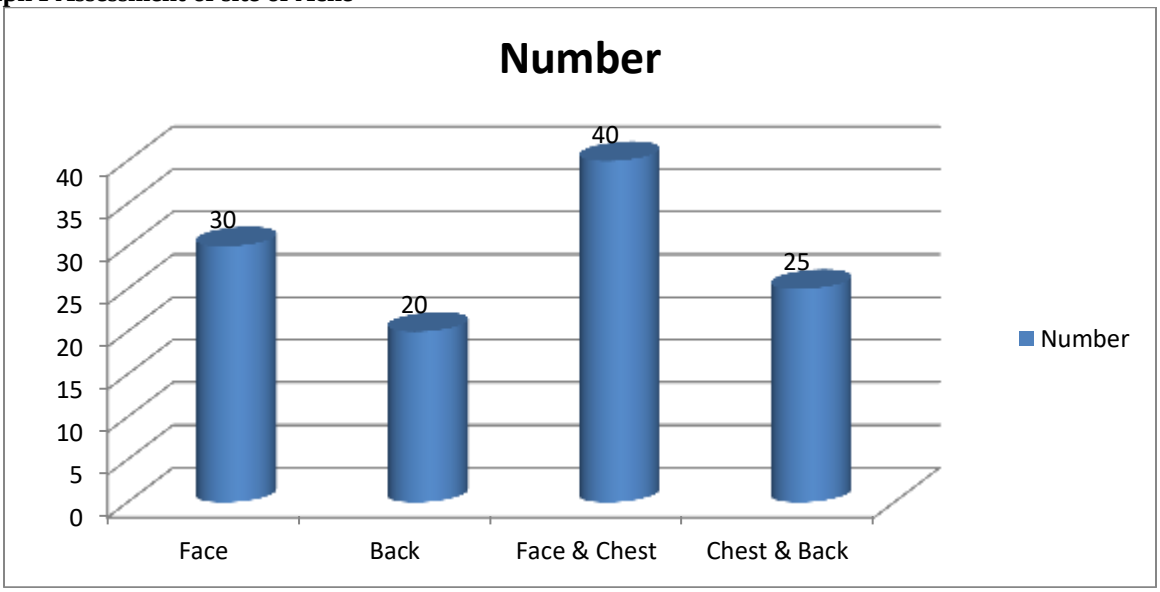
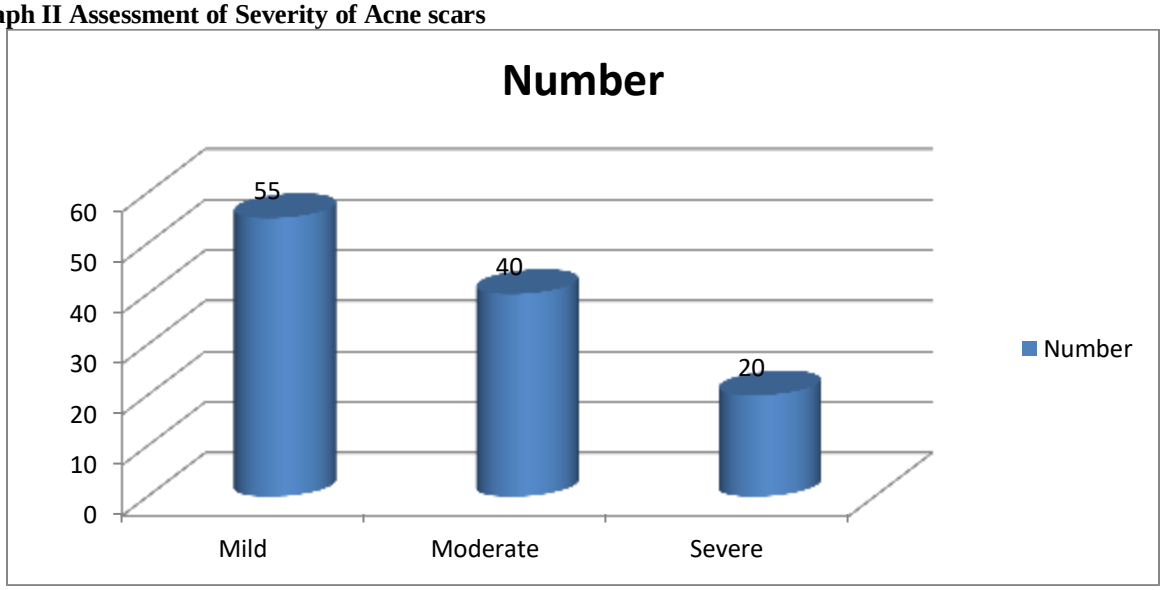


Table III Grading of Acne vulgaris

Grading	Number	P value
I	10	0.01
II	45	
III	40	
IV	20	

Table III shows that grade I was seen in 10, grade II in 45, grade III in 40 and grade IV in 20 patients. The difference was significant (P< 0.05).

Graph II Assessment of Severity of Acne scars



Graph II shows that acne grading was mild in 55, moderate in 40 and severe in 20. The difference was significant (P< 0.05).

DISCUSSION

The major complications of acne are scarring and psychosocial distress which persists long after active lesions have disappeared. Psychosocial effects of acne vulgaris have been long identified, but this sequelae of acne remain under evaluated.[6] Patients with acne have been shown to have levels of social, psychological, and emotional impairments similar to serious diseases such as asthma, epilepsy, diabetes, or arthritis. These patients are more prone to embarrassment, social withdrawal, depression, anxiety, and anger.[7] Acne vulgaris is characterized by non-inflammatory, open and closed comedones and by inflammatory papules, pustules and nodules. A closed comedo is a whitehead and an open comedo is a blackhead. A whitehead is an acne lesion that forms when oil and skin cells block the opening of hair follicle.[8] The present study was conducted to assess the cases of Acne vulgaris.

In present study out of 115 participants, males were 45 and females were 70. Alkhabbaz et al[9] conducted a cross-sectional study on 714 participants and the presence or absence of AV, as well as severity of AV, were assessed using the Global Acne Grading Scale. Of 714 participants, 320 self-reported AV. By clinical examination, AV was found among 479 participants. Factors that were found to be significantly associated with AV in multivariable analysis were age, gender, nationality, and BMI categories. Females compared to males and overweight or obese adolescents compared to normal weight were more likely to have AV. None of the food items studied showed an association with AV in multivariable analysis. Lucky et al[10] found that the severity of acne in boys correlated with pubertal maturation and that 50% of 10 and 11years old boys had more than 10 comedones.

In present study, common site was face & chest in 40, face in 30 and chest & back in 25 cases and back in 20 cases. Singh et al[11] conducted a study on 112 patients diagnosed with acne vulgaris of both genders. Patients were divided into grade 1, 2 and 3 based on Goodman and Baron scale. In all patients, the region was treated with topical anesthetic 2% lidocaine hydrochloride, followed by gentle cleansing with distilled water. The injection sites were injected with the application of 0.5ml of autologous platelet- -rich plasma on one side of the face and neck. The grade, type and patients satisfaction was evaluated. Age group 30 years had 8 males and 10 females. Rolling scars were seen in 56, boxcar in 14 and both in 42 patients. The difference was significant (P< 0.05). There was marked improvement in 66, moderate in 40, mild in 4 and no improvement in 2 patients. Excellent score was observed in 45, very good in 36, good in 22 and fair in 8.

We found that grade I was seen in 10, grade II in 45, grade III in 40 and grade IV in 20 patients. Acne grading was mild in 55, moderate in 40 and severe in 20 patients. Saitta et al[12] found that most cases (64%) were between 15 and 20 years. Females (57%) outnumbered males. Facial lesions (61.4%) and grade II acne were most common. Mean DLQI score was 7.22. DLQI scores were statistically influenced by the age of the patient, duration and grade of acne, acne scar, and post acne hyperpigmentation. This study showed significant impairment of QoL in acne patients. Assurance and counseling along with early treatment of acne vulgaris

are important to reduce disease related psychosocial sequelae and increase the efficacy of treatment.
The shortcoming of the study is small sample size.

CONCLUSION

Authors found that Acne vulgaris was most commonly seen in females than males.

REFERENCES

1. Aktan S, Ozmen E, Sanli B. Anxiety, depression, and nature of acne vulgaris in adolescents. Int J Dermatol 2000;39:354-7.
2. Shah J, Parmar D. A Complete Review on Acne Vulgaris. J Adv Med Dent Scie Res 2015;3(4):20-24.
3. Barnes LE, Levender MM, Fleischer AB Jr, Feldman SR. Quality of life measures for acne patients. Dermatol Clin 2012;30:293-300
4. Ismail KH, Mohammed-Ali KB. Quality of life in patients with acne in Erbil city. Health Qual Life Outcomes 2012;10:60.
5. Lello J, Pearl A, Arroll B, Yallop J, Birchall NM. Prevalence of acne vulgaris in Auckland senior high school students. N Z Med J 1995;108:287-9.
6. Shuster S, Fisher GH, Harris E, Binnell D. The effect of skin disease on self image. Br J Dermatol 1978;99:18-9.
7. Hayashi N, Miyachi Y, Kawashima M. Prevalence of scars and "mini scars", and their impact on quality of life in Japanese patients with acne. J Dermatol 2015;42:690-6.
8. Kulthanan K, Jiamton S, Kittisarapong R. Dermatology Life Quality Index in Thai patients with acne. Siriraj Med J 2007;59:3-7.
9. AlKhabbaz M, Al-Taiar A, Saeed M, Al-Sabah R, Albatineh AN. Predictors of acne vulgaris among adolescents in Kuwait. Medical Principles and Practice. 2020;29(4):310-7.
10. Lucky AY, Khan GK. Dermatology Life Quality Index (DLQI) – A simple practical measure for routine clinical use. Clin Exp Dermatol 1994;19:210-6.
11. Singh N, Banga P. Assessment of efficacy of Platelet rich plasma therapy for acne scars. J Adv Med Dent Scie Res 2019;7(3): 92-95.
12. Saitta P, Grekin SK. A Four question Approach to Determining the Impact of Acne Treatment on Quality of Life. J Clin Aesthet Dermatol 2012;5:51-7.