



International Journal of Dermatology, Venereology and Leprosy Sciences

E-ISSN: 2664-942X
P-ISSN: 2664-9411
www.dermatologypaper.com/
Derma 2019; 2(2): 19-21
Received: 14-05-2019
Accepted: 16-06-2019

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Self medication for acne vulgaris among young population- A clinical study

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DOI: <https://doi.org/10.33545/26649411.2019.v2.i2a.28>

Abstract

Introduction: Acne vulgaris is one of the most common dermatological disorders that afflict people in their adolescence. Self-medication is a common practice in medical students because of pharmacological knowledge and easy availability of drugs from different sources. The present study assessed self medication for acne vulgaris among young population.

Materials & Methods: The present study was conducted on 285 patients of Acne vulgaris of both genders. The questionnaire was designed regarding the pattern of self-medication, knowledge about dose, reasons, mechanism of action, adverse effect, complication, precaution, and contraindication.

Results: Out of 285 patients, males were 130 and females were 155. Common reason for self medication was lack of time in 71, easy availability in 85, mildness of illness in 30, previous prescription in 56 and drug knowledge in 43 cases. The difference was significant ($P < 0.05$). Source of information was books in 13%, social media in 42%, drug advertisement in 12%, pharmacist in 28% and drug leftover in 10%. Benzoyl peroxide was used in 12%, clindamycin in 8%, doxycycline in 15%, tretinoin in 20% and calamine lotion in 45%. The difference was significant ($P < 0.05$).

Conclusion: Authors found that common reason for self medication was lack of time, easy availability, mildness of illness, previous prescription and drug knowledge was benzoyl peroxide clindamycin, doxycycline, tretinoin and calamine lotion.

Keywords: Acne, calamine lotion, Self medication

Introduction

Acne vulgaris is one of the most common dermatological disorders that afflict people in their adolescence. Acne vulgaris or simply known as acne is a human skin disease characterized by skin with scaly red skin (seborrhea), blackheads and whiteheads (comedones), pinheads (papules), large papules (nodules), pimples and scarring [1]. Acne vulgaris is a disease of pilosebaceous unit characterized by the formation of open and closed comedones, papules, pustules, nodules and cysts. Acne affects skin having dense sebaceous follicles in areas including face, chest and back. Acne is not life threatening but severe acne can affect psychological status and social activities [2].

Acne is a disease which leads to low self-esteem, social embarrassment, social withdrawal, and depression [3]. The social, psychological, and emotional impacts of acne result into more consciousness, especially in young individuals. According to the WHO, rational self-medication helps in the prevention and treatment of minor pathological conditions at an affordable cost. However, it is associated with undesirable drawbacks, for example, serious adverse effects, drug interactions, polypharmacy, emergence of resistant pathogens, and also wastage of resources [4].

Self-medication is a common practice in medical students because of pharmacological knowledge and easy availability of drugs from different sources, for example, medical representative, hospital pharmacy, wards or from senior students. The prevalence of self-medication practice among medical students is from 57.7% to 76% [5]. The present study assessed self medication for acne vulgaris among young population.

Materials & Methods

The present study was conducted in the department of Dermatology. It comprised of 285 patients of Acne vulgaris of both genders. All were informed regarding the study and written consent was obtained. The study protocol was approved by the Ethics Committee.

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Data such as name, age, gender etc was recorded. The questionnaire was designed regarding the pattern of self-medication, knowledge about dose, reasons, mechanism of action, adverse effect, complication, precaution, and contraindication. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

Results

Table I: Distribution of patients

Total- 285		
Gender	Male	Female
Number	130	155

Table I shows that out of 285 patients, males were 130 and females were 155.

Table II: Reasons of self-medication for acne

Reason	Number	P value
Lack of time	71	0.04
Easy availability	85	
Mildness of illness	30	
Previous prescriptions	56	
Drug knowledge	43	

Table II shows that common reason for self medication was lack of time in 71, easy availability in 85, mildness of illness in 30, previous prescription in 56 and drug knowledge in 43 cases. The difference was significant ($P < 0.05$).

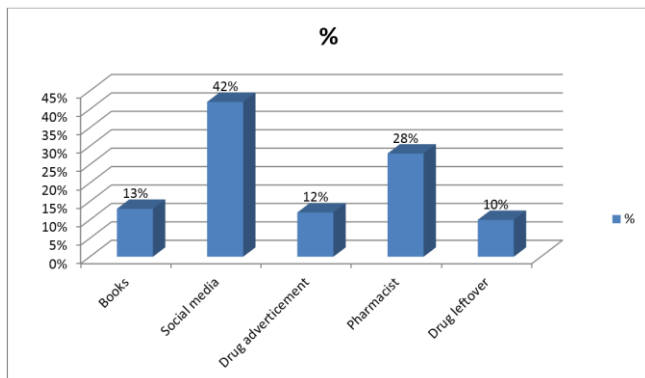
Graph II shows that benzoyl peroxide was used in 12%, clindamycin in 8%, doxycycline in 15%, tretinoin in 20% and calamine lotion in 45%. The difference was significant ($P < 0.05$).

Discussion

Acne scarring can produce severe disfigurement of face. Scarring is a complex biological process that involves various chemical mediators, extracellular matrix, parenchymal resident cells and infiltrating blood cells. Genetics is estimated to be the cause of 80% of cases [6]. The role of diet as a cause is unclear. Neither cleanliness nor sunlight appear to be involved. However, cigarette smoking does increase the risk of developing acne and worsens its severity [7]. Acne mostly affects skin with a greater number of oil glands including the face, upper part of the chest, and back. During puberty in both sexes, acne is often brought on by an increase in androgens such as testosterone. Excessive growth of the bacteria *Propionibacterium acnes*, which is normally present on the skin, is often involved [8]. The present study assessed self medication for acne vulgaris among young population.

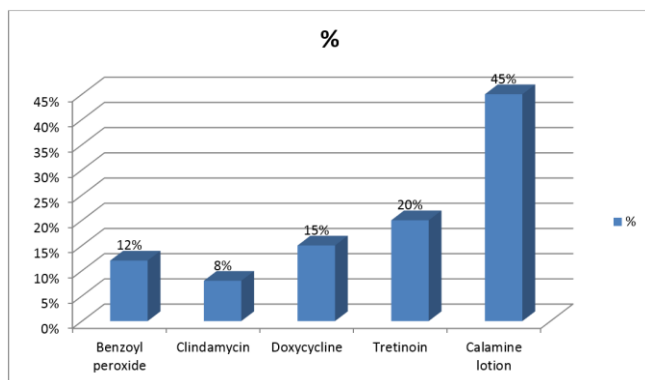
In present study, out of 285 patients, males were 130 and females were 155. We observed that common reason for self medication was lack of time in 71, easy availability in 85, mildness of illness in 30, previous prescription in 56 and drug knowledge in 43 cases. Karamata *et al.* [9] found that out of 582 students who responded to questionnaire, 518 suffered from acne. Self-medication practice was observed in 59.2% students. Significantly higher number of female students practiced self-medication ($P < 0.0001$). Most common source of information was seniors/friends/family members (34.2%). The mildness of illness (42.3%) was the most common reason of self-medication. A total mean score of knowledge was significantly higher in Group C as compared to Group A ($P < 0.001$) and Group B ($P < 0.05$). Allopathic medication was preferred by 69.8% students. Seventy-five percentage students read leaflet/package insert/label instruction and expiry date of the medicines.

We found that source of information was books in 13%, social media in 42%, drug advertisement in 12%, pharmacist in 28% and drug leftover in 10%. Badiger *et al.* [10] in their cross-sectional study included medical students of the second phase and final phase (part I and part II). A pretested questionnaire was given to them which included questions on knowledge, attitude and practice about self-medication for acne. In present study, out of 200 girls, 142 (71%) girls were affected with acne while 58 (29%) were not affected by acne. A112 (56%) girls were using allopathic medicines, 32 (16%) girls were using homeopathic medicines, 28 (14%) girls were using ayurvedic medicines while 28 (14%) girls were using other non-specific things. clindamycin was used by 104 (52%) girls, adapalene + benzoyl peroxide gel was used by 26 (13%) girls, clindamycin + nicotinamide gel was used by 12 (6%) girls, toothpaste was used by 42 (24%) girls while Aloe vera gel was used by 76 (38%) of girls. The reason for self-medication was mild nature of illness in 130 (65%) of girls, 96 (48%) girls did it to save the time, over the counter availability of medicines was the cause in 88 (44%) of girls, getting medicines from their previous prescription was seen in 52 (26%) of girls, 64 (32%) of girls did it to save the cost of consultation, 44 (22%) did it after getting knowledge from pharmacology book while 30 (15%) of girls felt



Graph I: Source of information

Graph I shows that source of information was books in 13%, social media in 42%, drug advertisement in 12%, pharmacist in 28% and drug leftover in 10%.



Graph II: Drug used for self medication

embarrassed to tell their own symptoms.

Conclusion

Authors found that common reason for self medication was lack of time, easy availability, mildness of illness, previous prescription and drug knowledge was benzoyl peroxide clindamycin, doxycycline, tretinoin and calamine lotion.

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