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KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS ACNE VULGARIS AMONG ACNE PATIENTS IN AL-HADA MILITARY HOSPITAL IN TAIF, SAUDI ARABIA; 2017.

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ABSTRACT

Objectives: To assess the Knowledge, Attitude and practice towards acne vulgaris among acne patients in Al-Hada Military Hospital in Taif, Saudi Arabia. **Subjects and methods:** It is a Cross-sectional descriptive study among 500 acne patients attending the dermatology outpatient clinics of Al-Hada Military Hospital in Taif. A sample of 500 participants was included, 280 males (56%) and 220 females (44%). The tool of the study was a self-administered questionnaire, which consists of questions on socio-demographic data (i.e. age, gender, marital state and education level) and questions to asses knowledge, perception and practice toward acne. **Result:** The study included 500 participants. Slightly more than half of them (56%) were males and majority of them (46.6%) were in the age group 15-19 years. The majority of participants agreed that hormonal changes and diet (chocolate, spicy food, fatty food were the causes and exacerbating factors by (86.8%) and (71.6%) respectively. Regarding the source of information, Doctors and medical staff were the main source of information by (62.4%) of participants. The majority of participants (63.2%) would consult a doctor regarding their skin condition and about (38.6%) of them believed acne is curable disease. It is clear that (84.4%) of them were feel sad/depressed when get acne. **Conclusion:** Thought the general level of knowledge of participants about acne vulgaris was good, they had number of misconception about it.

KEYWORD: *Knowledge, Attitude, acne vulgaris, Taif.*

INTRODUCTION

Background

Acne vulgaris is a common chronic skin disease involving blockage and/or inflammation of pilosebaceous units (hair follicles and their accompanying sebaceous gland). Acne can present as non-inflammatory lesions, inflammatory lesions, or a mixture of both, affecting mostly the face but also the back and chest.[1]

Research has shown that 85% of young people between the ages of 12 and 24 have acne and while it is most common in teenagers, acne affects 8% of adults aged 25 to 34 years and 3% of adults aged 35 to 44 years. Acne in young adults may represent continuation of adolescent acne or development of late-onset disease. Acne is more common in boys than girls during adolescence, but the incidence is higher in women during adulthood.[2]

Acne signs and symptoms vary depending on the severity of the condition:
Whiteheads (closed plugged pores), **Blackheads** (open plugged pores), **Small red tender bumps** (papules), **Pimples** (pustules), which are papules with pus at their tips, **Large, solid, painful lumps beneath the surface of the skin** (nodules), **Painful, pus-filled lumps beneath the surface of the skin** (cystic lesions).[3]

Acne vulgaris is a multifactorial disease of as yet incompletely elucidated etiology and pathogenesis. The following have been identified as the most significant factors: follicular hyperkeratosis, increased sebum secretion, Propionibacterium (P.) acnes and inflammation. Increased sebum production and follicular hyperkeratosis result in the development of microcomedones and changes in follicular milieu in intensive growth of P. acnes. P. acnes secretes several proinflammatory products, which play an important role in the development of inflammation. These include lipases, proteases, hyaluronidases and chemotactic factors. Immune response to P. acnes includes humoral and cell-mediated immunity as well as complement activation. Recent results indicate that keratinocytes and sebocytes, as major components of pilosebaceous unit, may act as immune cells and may be activated by P. acnes via toll-like receptors (TLRs) and CD14 and through CD1 molecules may recognize altered lipid content in sebum, followed by the production of inflammatory cytokines.[4]

The diagnosis of acne is based on the history and physical examination. Lesions most commonly develop in areas with the greatest concentration of sebaceous glands, which include the face, neck, chest, upper arms and back.[5]

Topical therapies used for acne treatment may be OTC or prescription products. Commonly used topical acne products include benzoyl peroxide (BP), either as monotherapy or in combination; antibiotics and retinoids, either as monotherapy or in combination; salicylic acid; azelaic acid; and sulfone agents.

Retinoids are an important first-line topical therapy for comedonal acne; however, retinoids increase the efficacy and acne-clearing benefits when used with other topical or oral agents in combination regimens. Retinoids function to resolve the primary acne lesion, as well as inhibit the formation of new comedones and they have anti-inflammatory properties. Taken together with other topical or oral agents, retinoid treatment allows for extended acne clearance in the maintenance phase after cessation of oral therapy.

Azelaic acid 20% is a mildly effective agent and has benefits in patients with sensitive skin. It is useful as an adjunctive agent and can be recommended in the treatment of post-inflammatory dyspigmentation.

Dapsone 5% gel is a sulfone agent used twice daily and it has modest to moderate efficacy. Dapsone is believed to provide benefit as an anti-inflammatory agent; however, treatment has demonstrated increased benefits in women compared with effects in men and adolescents.

Systemic antibiotics are used for moderate to severe inflammatory acne and should be used in combination with a topical retinoid or BP. The tetracycline class of antibiotics is considered a first-line treatment for moderate to severe acne. Both doxycycline and minocycline have demonstrated increased efficacy compared with tetracycline in the treatment of moderate to severe acne; however, there are no differences in efficacy between the 2 systemic antibiotic treatments. Macrolide antibiotics such as erythromycin or azithromycin can also be used in the treatment of acne, but these agents are usually reserved for patients who cannot take tetracyclines (ie, children <8 years of age and pregnant women).

Ethinyl estradiol/norgestimate, ethinyl estradiol/norethindrone acetate/ferrous fumarate, ethinyl estradiol/drospirenone and ethinyl estradiol/drospirenone/levomefolate are the 4 combination oral contraceptive pills (COCs) approved by the FDA for the treatment of AV in women who also desire contraception. All 4 of these medications are equally efficacious when used for the treatment of AV and may be used alone or in combination with other

treatments. Venous thromboembolic events, myocardial infarction (MI), ischemic and hemorrhagic stroke, breast cancer and cervical cancer are associated with COC use.

Oral isotretinoin has been used in the United States for more than 30 years and is approved by the FDA for the treatment of severely recalcitrant AV. AAD guidelines of care for the management of AV also support the use of oral isotretinoin for use in moderate AV that is treatment-resistant or quick-relapsing, or in patients who have significant scarring or psychosocial issues due to AV. Patients taking isotretinoin should be counseled to take this medication with food. Isotretinoin treatment is associated with AEs including inflammatory bowel disease (IBD), cardiovascular risk factors, depression or other mood changes, bone demineralization, concerns regarding scarring with procedures such as dermabrasion or laser resurfacing and Staphylococcus aureus colonization which may increase the risk for skin infections.4 Liver function tests and lipid panel should be routinely monitored while on isotretinoin therapy. Complete blood cell counts are not necessary.4 Isotretinoin is a teratogen and patients must be counseled regarding this. All patients (not just women), prescribers, pharmacies and manufacturers must register with the iPLEDGE program, which was designed to prevent fetal exposure to isotretinoin.

Other therapies for the treatment of acne include glycolic acid peels, salicylic acid peels, and pulsed dye laser treatments; however, there is little evidence to support the recommendation of these procedures. Safety and efficacy have not been established for complementary and alternative therapies for the treatment of AV. Currently, there is no “acne diet”; however, some data show that a diet with a high glycemic index and intake of dairy products may predispose patients to acne.[6]

Acne of any severity usually remits spontaneously by the early to mid 20s, but a substantial minority of patients, usually women, may have acne into their 40s; options for treatment may be limited because of childbearing. Many adults occasionally develop mild, isolated acne lesions. Non-inflammatory and mild inflammatory acne usually heals without scars. Moderate to severe inflammatory acne heals but often leaves scarring. Scarring is not only physical; acne may be a huge emotional stressor for adolescents who may withdraw, using the acne as an excuse to avoid difficult personal adjustments. Supportive counseling for patients and parents may be indicated in severe cases.[7]

Therefore, This study was conducted to assess the Knowledge, Attitude and practice towards acne vulgaris among acne patients in Al-Hada Military Hospital in Taif, Saudi Arabia.

RESEARCH DESIGN AND METHODS

Study design

A cross sectional descriptive study.

Study population

Conducted among 500 acne patients attending the dermatology outpatient clinics of Al-Hada Military Hospital in Taif.

Time period

A four- months period, from 5th October 2016 to 30th January 2017.

Inclusion criteria

Any acne patient male or female above 15 years in Al-Hada Military Hospital in Taif**.**

Exclusion criteria

We excluded any patients younger than 15 years, patients with drug-induced and other acneiform eruption and patients who were not willing to participate in the study.

Data collection methods

The questionnaire was distributed to all participants and verbally translated to Arabic language to ensure that all patients fully understand each question after explaining the aims of the study and obtaining verbal consents from them. All subjects were clearly advised that participation in this study was anonymous, voluntary and their personal information are confidential. The questionnaire was taken from another similar study.[8] It consists of questions on socio-demographic data (i.e. age, gender, marital state and education level) and questions to asses knowledge, perception and practice toward acne.

Data analyses

Statistical Package for Social Sciences (SPSS) for Windows version 16.0 was used for analysis. A chi-square tests ($\chi 2$) analysis was performed for the association and/or the difference between two categorical variables. For all statistical tests done, P-value equal or less than 0.05 was considered statistically significant.

Ethical considerations

Before conduction of the study, all necessary approvals were obtained.

RESULT

Table (1): Socio-demographic characteristic of the participants (N=500).

Variable	Number	Percent (%)
Gender		
Male	280	56%
Female	220	44%
Age		
15-19 years	233	46.6%
20-24 years	199	39.8%
25-30 years	50	10%
>30 years	18	3.6%
Marital state		
Single	208	41.6%
Married	189	37.8%
Divorced	80	16%
Widowed	23	4.6%
Education		
Illiterate	3	.6%
Primary school	5	1%
Intermediate school	23	4.6
Secondary school	209	41.8%
Bachelor or more	260	52%

A total of 500 participants were included in the current study. Their demographic characteristics are shown in the table (1). The participants were 280 males (56%) and 220 females (44%). About 46.6% of them were in the age group 15-19 years and 39.8% of them were in the age group 20-24 years. It is clear that (41.9%) of them were single and 52% of them have a bachelor's degree.

Table (2): Knowledge about causes and exacerbating factors among participants (N=500).

Causes and exacerbating factors	Yes	No	Don't know
Family history (genetics)	279 (55.8%)	112 (22.4%)	109 (21.8%)
Hormonal changes	434 (86.8%)	19 (3.8%)	47 (9.4%)
Diet (chocolate, spicy food, fatty food)	358 (71.6%)	80 (16%)	62 (12.4%)
Stress and tension	247 (49.4%)	144 (28.8%)	109 (21.8%)
Use of cosmetic products	189 (37.8%)	151 (30.2%)	160 (32%)
Using some drugs/medication	100 (20%)	287 (57.4%)	113 (22.6%)
Infection and poor hygiene	158 (31.6%)	141 (28.2%)	201 (40.2%)
Hot weather, sweat, exercise and dirt	107 (21.4%)	266 (53.2%)	127 (25.4%)
Worsen with squeezing/picking/rubbing	294 (58.8%)	150 (30%)	56 (11.2%)

As shown in the table (2), The majority of participants agreed that hormonal changes, diet (chocolate, spicy food, fatty food), family history and acne worsen with squeezing/picking/rubbing were causes and exacerbating factors by (86.8%), (71.6%), (55.8%) and (58.8%) respectively.

Table (3): Source of information (N=500).

Source	N (%)
Doctor / other medical staff	312 (62.4%)
Friend / family member	114 (22.8%)
Social media/TV/Magazine	74 (14.8%)

As shown in the table (3), Doctors and medical staff were the main source of information by (62.4%), while Social media/TV/Magazine were the less important source of information by (14.8%).

Table (4): Practices and perceptions of acne patients towards acne vulgaris (N=500).

Practices/attitude	N (%)
What do you do when you get acne?	
Consult a doctor	316 (63.2%)
Put self-prescribed medication	66 (13.2%)
Put home remedies	45 (9%)
Do nothing	73 (14.6%)
Regular face wash with cleansers	217 (43.4%)
Drinking plenty of water	93 (18.6%)
Eating healthy diet	41 (8.2%)
Put /take medications on lesions	53 (10.6%)
Put home remedies on lesions	32 (6.4%)
Do nothing	64 (12.8%)
Do you feel sad/depressed when you get acne?	
Yes	422 (84.4%)
No	78 (15.6%)
Do you try to remove the acne pimples by squeezing them?	
Yes	287 (57.4%)
No	213 (42.6%)
Do you think acne is curable disease?	
Yes	193 (38.6%)
No	167 (33.4%)
Don't know	140 (28%)

As shown in the table (4), the majority of participants (63.2%) would consult a doctor regarding their skin condition and about (38.6%) of them believed acne is curable disease. It is clear that (84.4%) of them were feel sad/depressed when get acne.

DISCUSSION

The purpose of this study was to determine the knowledge, idea and attitudes of acne patients in Al-Hada Military Hospital male and female above age 15 years about acne vulgaris. This result of this study revealed some important lacunae in knowledge and attitude of our population and patients about common skin problems.

In our study, about (55.8%) of the respondents believed that acne is inherited or having genetic factors. These results were better than other studies; for example, in Darwish, Magdy A. study, 32% perceived acne to be inherited from parents[9] while it was 18% of tallab study sample.[10] Food items in general were considered as cause and/or aggravating factors of acne. chocolate, spicy food and fatty food were considered a cause of acne by (71.6%) of the sample. In Muawad, Nouf S. Al, et al. study specific diet were thought to exacerbate acne by (46.1%).[8] In Al-Hoqail study 79% of acne patients sample believed the acne is related to diet.[11]

Tension was believed to be related to acne by (49.4%) of our patients. Higher result was found in Tallab study and Al-Hoqail study 65% and 80% of acne patients (respectively) believed that acne is related to stress. Only (37.8%) of our studied sample believed that acne is associated with the use of cosmetic products. Where as 53% of the study sample in a study done by Darwish MA knew that use of cosmetic products exacerbated acne.

Doctors and medical staff were the main source of information in our study population. Similarly, doctor/general practitioners were the main source by three-fourth of patients in study by Jerry et al.[12] While it was a source of information by only 1.1% of patients in study by Rigopoulos et al.[13] 14.8% of our patients and 17.5% of patients by Rigopoulos et al. got information from T.V/ social media while it was 44% in the study by Jerry et al et al.

In this study 38.6% believed acne is a curable disease while 49% of patients agreed to this in study by Jerry et al. and 96% thought acne to be curable in study by Brajaca et al.[14] and 41.9% by Yahya et al.[15] Over the counter medications were practiced by 13.2% of our patients to treat acne and only 63.2% would consult a doctor regarding their skin condition. While the results were observed in Muawad, Nouf S. Al, et al. study (65.8%) were used over the counter medication to treat acne and 11.4% preferred consulting a dermatologist when they had acne.

CONCLUSIONS

This study showed that the knowledge among the acne patients in Al-Hada Military Hospital in Taif about acne vulgaris was good, although there were some knowledge inadequacies and few minorities of them held some misconception.

There is a need to consider the basic knowledge of the patients about acne and to clear the misconceptions regarding the disease by the dermatologist.

Finally, community-based health awareness programs on acne are needed to increase the awareness and to prevent the malpractices done by acne patients.

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