



Evaluation of the use of complementary and alternative therapy in patients with psoriasis and acne vulgaris

Psoriasis ve akne vulgaris hastalarında tamamlayıcı ve alternatif tedavi kullanımının değerlendirilmesi

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Abstract

Background and Design: The aim of this study was to explore the use of complementary and alternative medicine (CAM) therapy in patients with acne vulgaris (AV) and psoriasis and their attitudes towards CAM.

Materials and Methods: A total of 300 patients, including 150 patients with AV and 150 patients with psoriasis, were included in the study. The patients were randomly selected among the patients who were admitted to dermatology outpatient clinic. A face-to-face structured questionnaire about CAM was applied to the participants. The data obtained were expressed as mean \pm standard deviation or number and percentage distribution. Chi-square test, t-test and Spearman correlation were used.

Results: The most frequently used CAM treatment method was "herbal therapy" (52.7%). It was determined that most of the patients (87.8%) using CAM had experienced side effects from the medical treatment.

Conclusion: CAM has been widely used in patients with AV and psoriasis despite dissatisfaction. Dermatologists should be aware of the tendency of patients to use non-traditional therapies and should guide patients to access the benefits and risks of CAM use.

Keywords: Complementary and alternative therapy, acne vulgaris, psoriasis

Öz

Amaç: Bu çalışmanın amacı, akne vulgaris (AV) ve psoriasis hastalarının tamamlayıcı ve alternatif tedavi (TAT) kullanımını ve TAT'ye yönelik tutumlarını araştırmaktır.

Gereç ve Yöntem: Çalışmaya, 150 AV ve 150 psoriasis tanılı olmak üzere toplam 300 hasta dahil edilmiştir. Hastalar, dermatoloji polikliniğine başvuran AV ve psoriasis hastaları arasından rastgele seçilmiş olup, katılımcılara TAT kullanımı ile ilgili soruların yer aldığı yüz yüze bir anket uygulanmıştır. Elde edilen veriler tanımsal istatistikler, ortalama \pm standart sapma, sayı ve yüzde dağılımı olarak ifade edilmiştir. Ki-kare testi, t-testi ve Spearman korelasyonu kullanılmıştır.

Bulgular: En sık kullanılan TAT yöntemi bitkisel tedavi (%52,7) olarak saptandı. TAT yöntemi kullanan hastaların çoğu (%87,8) tıbbi tedavinin yan etkisini bildirdi.

Sonuç: TAT, yaşanan memnuniyetsizliklere rağmen AV ve psoriasis hastalarında yaygın olarak kullanılmaktadır. Dermatologlar, hastaların geleneksel olmayan tedavileri kullanma eğiliminden haberdar olmalı ve hastaları TAT kullanımının faydalarına ve risklerine erişmeleri için yönlendirmelidir.

Anahtar Kelimeler: Tamamlayıcı ve alternatif tedavi, akne vulgaris, psoriasis

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Introduction

Complementary and alternative medicine (CAM) is defined as the healthcare systems, products and practices which have not yet been accepted as a part of conventional medicine¹. Many forms of treatment are included in the CAM, such as herbal therapies, acupuncture, aromatherapy, balneotherapy, hirudotherapy, homeopathy, osteopathy, naturopathy, hypnosis, massage, reflexology, shiatsu, yoga, dietary support, special diets and multivitamins^{2,3}.

The aim of this study is to report the frequency of CAM use by patients with psoriasis (Ps) and acne vulgaris (AV), including the methods chosen, the reasons for application, the effectiveness and side effects. In addition, an evaluation was made to determine the relationship between the rates of satisfaction from the use of CAM and previously used medical treatments, the relationship between the quality of life scale (QLS) and CAM usage as well as the general views and attitudes of the patients towards the use of CAM.

Materials and Methods

Patients were randomly selected from the applicants of dermatology outpatient clinic. The inclusion criteria for AV group were having AV at least more than one month, older than 14 years old, and acceptance to join the study. The inclusion criteria for Ps group was having clinical or histopathologically diagnosed Ps more than 6 months, age older than 18 years old, and acceptance to join the study. These criteria were set according to the Turkish reliability studies of disease-specific QLS. A total of 300 patients were included in the study, comprising 150 diagnosed with AV and 150 diagnosed with Ps. Both groups contained equivalent numbers of each gender. After obtaining informed consent from each patient, the CAM questionnaire and QLS were applied. The questionnaire which had been prepared regarding CAM methods was completed using face-to-face interviews and the QLS was completed by the patient.

The questionnaire consisted of 3 sections. The first section included socio-demographic data while the second section contained general questions related to the medical details, social history. In the third section, detailed questions of each patient regarding their opinions and attitude towards CAM methods were present. The acne QLS, which was developed by Gupta et al.⁴ and verified for validity and reliability for the 14-38 years age group from studies on Turkish validity and reliability by Demirçay et al.⁵, was applied to the AV patients. The Ps QLS, analyzed for validity and reliability by İnanır et al.⁶, was applied to the Ps patients. Scoring of the severity of the specific disease was calculated by evaluating the clinical findings on presentation at the clinic, and using the Ps Area and Severity Index for Ps and the Global Acne Grading System for the AV patients.

Statistical Analysis

The data obtained is expressed as descriptive statistics, mean \pm standard deviation, number and percentage distribution. In the comparison of categorical variables, the chi-square test was used and in the comparison of nominal variables, the t-test was applied to independent groups. In calculating correlations between variables, Spearman correlation analysis was used. Value of $p < 0.05$ was accepted as statistically significant.

Results

Socio-demographic data and findings related to dermatological diseases and quality of life

The mean age was calculated as 20.4 ± 3.2 years (14-34 years) for AV and as 39.2 ± 16.0 years (18-77 years) for Ps patients. Both groups comprised equal numbers of male and female patients. The duration of the disease was determined as 1-5 years in 54% of the AV and in 25.3% of the Ps patients. Also, the disease duration was more than 5 years in 67.3% of the Ps and in 37.3% of the AV patients. The severity of the disease was evaluated as mild in 82.7%, moderate in 17.3% of the Ps and as mild in 59.3%, moderate in 32% of the AV patients. The mean QLS was calculated as 13.8 ± 4.2 points (9-27) in AV and 13.6 ± 9.1 points (0-40) in Ps patients.

Results related to the use of complementary and alternative medicine

Amongst 300 patients included in the study, 193 (64.3%) were determined to have used at least one CAM method. Although no statistically significant relationship was determined between CAM use and age, 65.8% of the patients who used CAM were found to be between 19-35 years. Also, although statistically significant relationship was not found, 65.8% of CAM users were single, 54.4% were students. A statistically significant relationship was determined between CAM use and educational level ($p = 0.039$) with 62% of patients being university students or graduates. The ratio of females to males using CAM among the AV patients was statistically very significant ($p = 0.001$). While a statistically significant relationship was determined between the use of CAM methods and the severity of the disease in Ps ($p = 0.008$), no such relationship was determined in the AV patients. There was no statistically significant relationship between the rate of using CAM methods and the duration of the disease in all patients. The rate of usage of CAM by patients who presented at more than 10 outpatient clinics in the previous year was determined to be significantly higher ($p = 0.023$). There was a statistically extremely significant relationship between CAM usage by Ps patients and a history of hospitalization ($p < 0.001$).

A statistically extremely significant relationship was determined between the QLS score and use of CAM methods in both patient groups, with a stronger correlation determined in the Ps ($r = 0.356$, $p = 0.000$) compared with the AV patients ($r = 0.205$, $p = 0.012$).

At least one CAM method for dermatological diseases had been used by 107 (71.3%) AV and 86 (57.3%) Ps patients and the difference between the two groups was statistically significant ($p = 0.011$), in favor of the AV patients. In terms of localization, a statistically significant relationship was determined between involvement of the face and the use of CAM ($p = 0.015$).

CAM methods preferred by the patients and the rates of use of those methods are demonstrated in Table 1. The most frequently used method was "herbal therapy" (52.7%), followed by "non-herbal other topical products" (29.7%) among all the patients (Table 1).

The most frequently used CAM methods of AV patients were determined to be herbal therapy (62%), non-herbal other topical products (39.3%), dietary restrictions (8%) and dietary supplements (3.3%). Non-herbal topical products defined by the AV patients were

Table 1. The rates of the complementary and alternative medicine methods preferred by the patients

CAM methods	n (%)
Herbal therapy	158 (52.7)
Non-herbal other topical products	89 (29.7)
Diet restrictions	25 (8.3)
Balneotherapy	20 (6.7)
Dietary support	13 (4.3)
Prayers	13 (4.3)
Fish pool	11 (3.7)
Hirudotherapy	5 (1.7)

CAM: Complementary and alternative medicine

clay masks, vinegar, mineral water, sulphur soap, honey, yogurt and eggs. The most frequently used of these methods was rose water (32.7%).

The most frequently used CAM methods by the Ps patients were determined to be herbal therapy (topical and oral) (43.3%), non-herbal topical products; bay leaf soap, bitumen, henna, charcoal water, salt, fish oil, honey, vinegar (20%), balneotherapy (13%), diet restrictions (8.7%), prayers (8.7%), fish pool (7%), dietary supplements (5.3%), hirudotherapy (3.3%) and massage (1.3%). Herbal mixture cream was seen to be the therapy most used by Ps patients (28.7%) followed by oral herbal mixture therapy (20%). Therapies such as balneotherapy, fish pool, prayers, hydrotherapy and massage were only attempted by the Ps patients (Table 2).

Among the patients using CAM methods, 72.2% used topical therapies, 16.5% topical and oral therapies, 5.2% oral therapies and 6.2% other CAM methods. Of the AV patients, 91.5% stated that they had used topical CAM methods and of the Ps patients 47.7% reported the use of topical and 32.6% topical and oral CAM methods.

The patients who had experienced side-effects from medical treatment were determined to have used CAM methods more. 88.4% of AV and 87.1% of Ps patients who had described side-effects from medical treatment were determined to have used CAM methods. CAM methods were used by 69.9% of patients prior to medical treatment, by 28.4% of the patients at the same time as medical treatment and by 1.5% of the patients following medical treatment. Among the patients using CAM methods for dermatological diseases, 72.5% reported medical treatment to be more effective and 7.6% reported CAM methods to be more effective.

When the rationale for applying CAM were examined, AV patients were convinced by recommendations from people around them (60.7%), that it was natural and safe (58.9%) and that there were no side effects (34.6%). For Ps patients these reasons were the recommendations from people around them (62.8%), dissatisfaction with medical treatment (59.3%) and trying other possible means (43%).

The vast majority of patients applied the method themselves (96.8%) and mostly at home (93.2%). While all the AV patients applied the methods themselves at home, 7% of the Ps patients were treated by a CAM practitioner and 13% presented at a special centre for the application of CAM methods.

Out of 135 patients who had a family member who had used CAM for any disease, 101 (74.8%) used CAM for a dermatological disease

Table 2. Complementary and alternative medicine methods usage for acne and psoriasis patients

	Acne vulgaris n (%)	Psoriasis n (%)	p
CAM methods	107 (71.3)	86 (57.3)	<0.05
Herbal therapy	93 (62)	65 (43.3)	<0.01
Non-herbal topical products	59 (39.3)	30 (20)	<0.001
Dietary restrictions	12 (8)	13 (8.7)	>0.05
Dietary supplements	5 (3.3)	8 (5.4)	>0.05
Balneotherapy	0 (0)	20 (13.3)	<0.001
Fish pool	0 (0)	11 (7.3)	-
Prayers	0 (0)	13 (8.7)	-

CAM: Complementary and alternative medicine

and this relationship was determined to be statistically very significant ($p=0.001$).

The rate of informing doctors about the used CAM methods was significantly higher in Ps (36.6%) than in AV cases (15%) ($p<0.01$). When those who had not informed their doctor were questioned for the reason, 81.3% of the AV and 76.3% of the Ps patients reported that it was because the doctor did not question. The rate at which doctors asked the patients about the use of CAM was 1.3% for the AV and 2% for the Ps patients.

Discussion

CAM methods are generally used in diseases that are chronic, resistant to treatments and have negative physical and psychological effects^{7,8}. AV may last long in spite of treatment and may leave permanent scars on the skin, thus may cause negative psycho-social effects⁹⁻¹². Ps has a chronic course with exacerbation and recovery periods and affecting QLS to a significant degree^{6,13,14}.

The rate of use of CAM methods by patients presenting at dermatology clinics has been reported as 12.6%, 33.5% and 43,7% respectively in Turkey^{2,8}. In the current study, 64.3% of all cases were determined to have tried at least one CAM method, which is a higher value than those reported in the previous studies. When all these studies are examined, it can be observed that there has been a historical increase in the application of CAM methods and our study supports this finding. Also, in the current study, the ratio of AV patients using at least one CAM method (71.3%) was significantly higher than the Ps (57.3%). It may be related to the AV patients tend to be younger, almost all of them are adolescents, a period in which physical appearance is extremely important and faster recovery requests.

In the current study, although no statistically significant difference was determined between the groups using CAM methods in respect of socio-demographic characteristics apart from educational level, it was determined that the rate of CAM usage was higher in the 19-35 age group, female, single, students. This condition may originate from younger, single, higher educated patients hoping to get the most satisfactory response as soon as possible, being influenced by the people in close relationship, media and internet. As there was a significantly higher rate of usage of CAM methods by females with acne compared to males may be related to females being more interested in their

outlook. Our results are consistent with other studies reporting greater use of CAM in young, female, single, higher-educated patients^{2,7,15,16}. Studies conducted on the use of CAM in dermatological diseases have reported that CAM usage significantly increased with the duration of the disease^{15,17,18}. In the current study, although no statistically significant relationship was determined between CAM usage and the duration of the disease, the rate of CAM application was seen to be higher in those with more than 5 years disease duration. Similar to the current study, Ben-Arye et al.¹⁹ did not determine a statistically significant relationship between CAM usage and disease duration. Also, it was reported that there was a higher rate of CAM use in those more than five applications to the dermatology clinics by Gönül et al.⁸, similarly. It was determined that as the number of clinic visits increased, CAM use increased.

In this study, it was determined that there was a significant increase in the rate of CAM application with an increase in the severity of the disease in Ps while no such relationship was observed in the AV patients. Chen and Chang²⁰ also reported that the rate of CAM application increases with the severity of the disease in Ps patients. Also, it was suggested that CAM application ratio was significantly increasing with the impairment in the dermatology QLS. This may be due to the Ps longer course, resistant to treatment and adverse psychosocial outcomes.

Studies determining CAM methods have shown differences between countries; reported as herbal medication (26.3%), special diet (13.6%) and megavitamin use (7.1%) in Taiwan, herbal therapies and homeopathy in England, naturopathy in Switzerland, traditional Chinese medication in Australia, topical applications in Korea, supplements (fish oil, glucosamine and omega-3) in United States and topical herbal medications in Macedonia^{15,16,18,20-22}. Also, in the current study, herbal therapies were most preferred CAM method options in both groups. Kutlu et al.² reported that 57.9% of patients using a CAM method preferred topical herbal therapies. Also, Ben-Arye et al.¹⁹ reported that the most frequently used CAM methods by Ps patients as herbal therapies (64.6%) were, diet (20.8%) and homeopathy (18.8%). In the study of Damevska et al.²¹ it was stated that Ps patients used topical herbal medicine in the ratio of 36.8%, and medicinal plants were used by 54.4% patients with Ps in the study of Shawahna and Jaradat²³ whereas the current study reported the use of herbal therapy (topical and oral) (43.3%) in Ps patients. In addition it was stated that in contrast to the AV, Ps patients applied balneotherapy, fish pool, hydrotherapy and massage methods in the current study. Gönül et al.⁸ stated that application of lemon juice, spiritual healing and application of clay methods were mostly used by AV whereas herbal therapies, spiritual healing and thermal spring were mostly used CAM methods in Ps patients. Kutlu et al.² reported that 15.8% of patients presenting at the dermatology clinic and 32.3% of Ps patients reported to apply balneotherapy and/or fish pool.

One of the most significant factors encouraging patients to use CAM methods is experiencing side effects from medical treatment. In the current study, it was determined that most of the patients (87.8%) using CAM had experienced side effects from medical treatment. Durusoy et al.⁷ reported that 31.6% of patients used CAM alone and 68.4% used a combination of CAM and medical treatment. In the current study it was determined that the majority of patients using CAM (69.9%) applied those methods prior to medical treatment,

28.4% at the similar time and 1.5% following medical treatment. By the reason of the vast majority of patients used CAM before medical treatment and there was a noticeable decrease in CAM application rate following medical treatment, this has been interpreted as an inadequate response obtained with the CAM methods. However, as there were equal numbers of Ps patients using CAM before medical treatment and at the same time, it can be considered that Ps patients have a greater tendency to use complementary therapies. In the current study, the vast majority of cases stated that medical treatment was more effective than CAM methods and it was found that 7.6% of the patients reported that CAM methods were more effective. Durusoy et al.⁷ reported this rate as 19.2% and Chen et al.²⁰ as 4%. Also, McAleer and Powell²⁴ reported that, similar to the current study, medical treatment was more effective than CAM methods.

In this study, the primary reason for applying CAM in both groups was recommendation from surroundings, mostly friends for AV and relatives for Ps patients. Consistent with the study, it was stated that CAM users preferred methods most often with the proposal of their close relatives and friends^{2,8,20,24,25}. Also, it is concluded that the patients participating in the study of which had family history of CAM use were found to have higher CAM usage. This may be resulted from the recommendations from family members who have used CAM methods.

All of the AV and vast majority of the Ps patients (77.9%) indicated that they applied CAM methods at home in the current study. Kutlu et al.² stated that most of the patients applied CAM methods at home. Also, McAleer and Powell²⁴ reported that Ps patients have higher rate of admission to professional CAM practitioners.

Studies have shown that patients do not willingly offer information regarding CAM use to their physicians, therefore, the onus is on the physician to ask questions regarding CAM use²⁶. In the current study, the rate of the patients not informing doctors confirmed the literature (77%)²⁰. The rate of Ps patients informing the relevant doctors was significantly higher than the AV. This may be related to Ps being a long-term chronic disease and thus the patient-doctor relationship may be more developed than that of AV patients. Amongst the reasons for patients not informing their doctors, the primary reason was not questioning by the doctor (79.3%), followed by fear of criticism (16.2%) and not to think about the necessity of talking about CAM use (7.3%). Only 5 (0.01%) of the patients stated that they had been previously questioned about CAM methods by a dermatologist. It is noteworthy that in these situations, doctors must be aware of this subject and when taking the patient history, they have to pay a particular attention to asking about CAM methods.

Study Limitation

The limitation of our study was small patient population.

Conclusion

It can be concluded that CAM methods are in widespread use nowadays; and, there is an increasing interest. Although the majority of dermatological conditions are not life-threatening, they have significant negative effects on psychosocial status and QLS, causing patients to seek alternative treatments. Dermatologists should question patients in terms of using CAM methods in addition to taking their medical treatment history, thus improving doctor-patient relationships

and cost reduction and prevention of adverse effects arising from these methods. Patients also should inform their physicians about their CAM methods as well as conventional treatments. Moreover, they should be warned that the simultaneous use of both treatments may cause serious adverse effects.

Ethics

Ethics Committee Approval: Ethics committee approval was not received because it was a questionnaire-based research study.

Informed Consent: Written informed consent have been obtained from the patients.

Peer-review: External and internal peer-reviewed.

Authorship Contributions

Concept: V.B.A., D.M., Design: V.B.A., D.M., Data Collection or Processing: D.M., Analysis or Interpretation: D.M., V.B.A., İ.E., Literature Search: D.M., İ.E., Writing: D.M.

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