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Original Article

Comparison of Quality of Life in Women Suffering from Cutaneous Leishmaniasis Treated with Topical and Systemic Glucantime along with Psychiatric Consultation Compared with the Group without Psychiatric Consultation

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Abstract

Background: Cutaneous leishmaniasis (CL) is a parasitic disease which is endemic in Iran. Isfahan is one of the main centers of this disease. The aim of this research was to study the effect of psychotherapy on quality of life (QOL) in women with CL treated with glucantime.

Methods: During this study, 80 patients were randomly allocated into two groups of drug therapy and drug therapy with psychotherapy. QOL was measured by dermatology life quality index (DLQI) and compared at the beginning and at the end of the intervention. Data were analyzed using SPSS software.

Results: The score of DLQI before and after intervention in the group of drug therapy with psychotherapy was 10.6 ± 5.7 and 7.7 ± 4.6, respectively and their difference was significant in this group (P = 0.001). The score in drug therapy group before and after intervention was 10 ± 5.1 and 11 ± 5.1, respectively which was not a significant difference. The mean difference score of quality of life before and after the treatment in the drug therapy with psychotherapy group was 2.9 ± 5 and in the drug therapy group was 1.4 ± 4.2; therefore, the quality of life was significantly higher in the patients treated with combination of drug therapy and psychotherapy (P < 0.001).

Conclusion: Given the quality of life improvement by adjunct psychotherapy and drug therapy in women suffering from CL, providing psychiatric consultation for the patients in relevant health units is recommended.

Key words: Cutaneous leishmaniasis, Quality of life, Psychotherapy.

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The old world cutaneous leishmaniasis (CL) is a parasitic disease mainly caused by leishmania Major, leishmania Tropica, leishmania Infantum and leishmania Ethiopica. Pentavalent antimony compounds are the conventional treatment of CL.[1-3] It is noteworthy to mention that recovery time for lesions caused by L. major and L. tropica is prolonged and may last more than 9 and 12 months, respectively. The main objective of the treatment is to shorten the recovery time of lesions and prevent scarring. The lesions caused by CL are never fatal, but if they happen in visible areas (like face, arms, feet) they can be annoying. After recovery, would leave a permanent scar. Numerous studies have shown that cutaneous diseases increase the prevalence of psychological disorders. Anxiety, depression, suicidal thoughts, decreased self-confidence, quality of life (QOL), and body satisfaction are the consequences associated with cutaneous diseases.[4-12] The study of Yanik et al. who investigated the QOL, stress,

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depression and body image of CL patients, showed that these patients have a lower QOL and higher depression and anxiety levels compared with the control group.[13] Women with CL seek for effective treatment options of this disease more than men.[14] CL is very important from the society viewpoints specially in women. That is due to the residual scar of this disease which affects the beauty and appearance of the patients and consequently, could affect their psychological status. The current study was designed to assess the effect of adjunct psychiatric consultation with drug therapy compared to drug therapy alone on QOL of the women suffering from CL lesions.

Methods

This randomized clinical trial was done in Skin Diseases and Leishmaniasis Research Center (SDLRC) of Isfahan on women with CL referred to this center during 2007. The total number of recruited patients was 40. Sample size was calculated based on at least 20% expected difference in response to the psychiatric treatment with 2% accuracy, 95% confidence interval and 90% test power using the following formula:

$$n = \frac{(z_{1-\alpha} + z_{1-\beta})^2 p(1-p)}{d^2} = \frac{10(0/2 \times 0/8)}{(0/2)^2} = \frac{10 \times 0/16}{4 \times 10^{-2}} = \frac{160}{4} = 40$$

The patients were randomly allocated into the control (drug therapy alone) and intervention (psychotherapy along with drug therapy) groups. All the women with CL over 10 years old were eligible to enter the study. Those who refused to fill the questionnaire completely or changed their minds to participate in the study were excluded from the study.

Dermatology life quality questionnaire index (DLQI) questionnaire was used to study the QOL of the patients. The questionnaire was filled as a face to face interview. Before completing the questionnaire, the aim of the interview was explained for the patients and only those who were willing to cooperate were interviewed. In both groups, patients received therapy and were treated by standard dose of 20 mg/kg glucantime for 20 days. In patients that intralesional glucantime was indicated it was injected weekly (for maximum of six weeks or up to complete cure) in such a way that the entire lesion and a 1 mm margin around it turned white. The patients with psychotherapy, received weekly psychiatric consultation in addition to medication. All patients were checked and visited by the project partner in the clinic. They also were checked for recovery of the lesions, drug tolerance and side-effects of the drugs fortnightly. QOL was assessed before and at the end of week eight and the within and between differences were evaluated. Data was analyzed with SPSS 16 software using t-paired test (to compare the QOL), chi-square before and after test (to measure the relationship between qualitative variables), Wilcoxon test (to compare the values and mean differences of QOL levels before and after the intervention), and Mann-Whitney test (to compare QOL of both groups).

Results

The mean scores of DLQI questionnaire before and after intervention in patients treated by adjunct psycho- and drug therapy were 10.6 ± 5.7 and 7.7 ± 4.6, respectively. Based on the t-paired test, mean difference of the score before and after the intervention in this group was significant (P = 0.001) which means that QOL was improved in this group after treatment. The mean scores of DLQI questionnaire before and after intervention in patients treated by drug therapy were 10 ± 5.1 and 11 ± 5.1, respectively. T-paired test showed that mean difference of QOL before and after the intervention in this group was not significant (P = 0.091). The mean differences of QOL scores in adjunct psycho- and drug therapy group and drug therapy alone were 2.9 ± 5 and 1.4 ± 4.2, respectively. There was significantly more improvement in QOL score in combined psycho- and drug therapy (P < 0.001). Frequency distribution of data is shown in table 1. Table 2 shows the results of statistical comparison of DLQI questionnaire items in both groups before and after the intervention (at the end of week 8). At week 8, there was a significant difference between the two treatment groups in item 2 (embarrassment from the skin), item 5 (effect on social or leisure activities), daily activi-

ties (items 3 and 4), personal relationship (items 8 and 9) of DLQI questionnaire. In another word, in combined psycho- and drug therapy group, CL lesion has less effect on these aspects of patient's quality of life. There was no significant difference in item 1 (feelings like itch, soreness, pain or stinging sensation), item 6 (effect of skin problem on sport), item 7 (work and school) and item 10 (problems due to the treatment) between two treatment groups.

Table 1. Frequency distribution of scores of DLQI questionnaire scores on quality of life in women with cutaneous leishmaniasis lesions in two groups of adjunct psycho- and drug therapy and drug therapy alone at the beginning and at the end of the study (week 8).

	Effect on quality of life	Small Number (%)	Moderate Number (%)	Very large Number (%)	Extremely large Number (%)	P value
Beginning of the study	Drug therapy + psychotherapy	13(32.5)	21(52.5)	5(12.5)	1(2.5)	0.59
	Drug therapy	8(20)	16(40)	15(37.5)	1(-2.5)	
Week 8	Drug therapy + psychotherapy	11(27.5)	14(35)	13(32.5)	2(5)	0.001
	Drug therapy	4(10)	15(37.5)	17(42.5)	4(10)	

Table 2. The results of DLQI questionnaire in two groups of adjunct psycho- and drug therapy and drug therapy alone before and after the intervention and their differences at the end of the study.

Items of DLQI questionnaire	The difference within each group before and after the intervention		The difference between the two groups after the treatment (week 8)
	Drug therapy + psychotherapy	Drug therapy	
1. Over the last week, how itchy, sore, painful or stinging has your skin?	P = 0.003	P = 0.02	P = 0.4
2. Over the last week, how embarrassed or self-conscious have you been because of your skin?	P = 0.002	P = 0.53	P = 0.003
3. Over the last week, how much has skin interfered with you going shopping or looking after your home or garden?	P = 0.04	P = 0.001	P = 0.001
4. Over the last week, how much has your skin influenced the clothes you wear?	P = 0.43	P < 0.001	P < 0.001
5. Over the last week, how much has your skin affected any social or leisure activities?	P = 0.65	P < 0.001	P = 0.005
6. Over the last week, how much has your skin made it difficult for you to do any sport?	P = 0.2	P = 0.83	P = 0.31
7. Over the last week, has your skin prevented you from working or studying?	P = 0.003	P = 0.74	P = 0.26
8. Over the last week, how much has your skin created problems with your partner or any of your close friends or relatives?	P = 0.02	P = 0.2	P = 0.002
9. Over the last week, how much has your skin caused any sexual difficulties?	P < 0.001	P = 0.26	P < 0.001
10. Over the last week, how much of a problem has the treatment for your skin been, for example by making your home messy, or by taking up time?	P = 0.003	P = 0.03	P = 0.22

Discussion

The main objective of this study as to assess the effect of psychiatric consultation on the quality of life of women over 10 years old with CL lesions treated by glucantime. Treatment of CL lesions is one of the major challenges of dermatologists in endemic areas. Yanik et al. study showed a reduction of QOL in CL patients compared to the control group; those with CL lesions in visible areas like hands and face, an active lesion more than one year, and a permanent scar, experienced social isolation with high anxiety, depression, reduced QOL and body satisfaction.[13] In recent Zachariae et al. study about the psychological effects of skin diseases like psoriasis and atopic dermatitis, they showed that these patients have much more stress and much less QOL scores compared with the control group or the groups who do not require hospitalization. Moreover, women and young patients with dermal lesions had more psychological disorders than men and elderly people.[15] One of the features of CL is that not only this is a physical problem also a psychological and social disease.[16] After healing of the CL lesion it leaves a scar on the skin which makes a permanent bad looking view for the patients. If the lesion is located on the nose, auricle and other areas which have a thin tissue, it would lead to tissue destruction. Therefore, suffering from CL lesions potentially could lead to some severe psychological disorders especially for young women. Residual scars on the face, in addition to the psychological disorders, will result in some social problems. The issue of CL effect on QOL can be evaluated in different aspects. This disease could lead to mental imbalance and depression due to its residual scar. Besides, depressed individuals feel worthless in their lives, so QOL of these individuals would wane gradually. One of the most important measures that can be done for these patients is to try to eliminate depression. The other factor of CL effects on QOL is its direct effects. Possessing some general symptoms like itching, erythema and tingling sensation, CL lesions could reduce QOL of the patients. On the other hand, lesion discharges, secondary infections and the trace of lesion on the patient's clothes may also reduce the quality of life. Social and cultural factors, dominant traditions and customs of the community are the other effective factors on QOL of the patients suffering from CL. In a considerable number of traditional societies, particularly in villages, cleaning and washing the lesions is not recommended. Instead, in some cases, rubbing some contaminated materials like soil or home-made poultice is encouraged. Obviously, using these materials on the lesion will cause secondary infections and eventually leads to a worse residual scar. All the aforementioned factors will reduce the quality of life in the patients. Obviously, if the patients get familiar with CL complications and the possibility of its residual scar, they will get over it better. Day healthcare centers should teach the patients the way to prevent developing of the lesion and therefore the residual scar. The issue of secondary infections also must be considered in the patients' training programs. On the other hand, the patients and their families must be taught not to consider the suffering individual as a patient and they must involve him/her in social activities and recreations. Therefore, the patients would think less about the complications and side effects of their illness. Generally, it can be concluded that psychotherapy and psychiatric consultation may be helpful in preventing depression and improve quality of life in women with cutaneous leishmaniasis. As a useful strategy, providing psychiatric consultation to the patients with cutaneous leishmaniasis by healthcare services responsible for prevention and treatment of CL is recommended.

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