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Psychological Status and Coping with Illness in Patients with Malignant Melanoma

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A B S T R A C T

Melanoma patients are subject to different degrees of psychosocial distress. The emotional impact of malignant melanoma can be long lasting and profound, with the most common reactions to melanoma being depression, anxiety and deterioration in quality of life. Coping styles have been shown to have a significant influence on patients' quality of life and their emotional reaction to the illness. The aim of this paper was to investigate the quality of life, emotional status and coping styles in patients with melanoma. 31 patients suffering from malignant melanoma were included in the study. Results of this study show that melanoma has a medium influence on patients' psychological status and quality of life. The most »constructive« coping style – problem focused coping is the mostly used style by the patients, which might be one of the reasons why the illness didn't have a more severe influence on patients' psychological status.

***Key words**: malignant melanoma, emotional reaction, depression, quality of life, coping styles*

Introduction

Malignant melanoma is a malignant tumour that originates in melanocytes, the pigment producing cells of the skin[1]. It is the most serious form of skin cancer. Although melanoma accounts for only 4% of diagnoses of skin cancer, it accounts for 80% of skin cancer related death[2].

Melanoma patients are subject to different degrees of psychosocial distress[3]. Since melanoma is a life threatening disease, a strong psychological reaction is understandable. The emotional impact of malignant melanoma can be long lasting and profound, with the most common reactions to melanoma being depression, anxiety and deterioration in quality of life[4]. Some research has found differences in emotional reactions to melanoma by sex, with women reporting greater distress than men[5]. However, the distress has not been found to differ by the stage of melanoma[5].

Quality of life predicts survival in patients with different forms of cancer[2,6], including melanoma[7], which suggests a possible important role of psychological factors in disease outcome. On the other hand, coping styles have been shown to have a significant influence on patients' quality of life and their emotional reaction to the illness[8,9]. Coping includes attitudes and behaviors that have an adaptive intent when dealing with a threatening situation. The person adopts ways of thinking and behaving that aim to address a situation in a constructive manner and safeguard his/her emotional state. There are three fundamental types of coping: problem focused coping – directed towards solving the problem, emotion focused coping – directed towards reducing emotional distress and avoidance strategies – avoiding the problem. It appears that some types of coping are generally better than others, in a way that they lead to a better emotional reaction and better quality of life when dealing with a serious illness[8].

The aim of this paper was to investigate the quality of life (QoL), emotional status and coping styles in patients with melanoma. Potential differences according to the gender and severity of the disease as well as the relationships between QoL, emotional status and coping styles were also points of interest in this study.

Materials and Methods

The study was conducted at the Department for dermatovenereology during 5 months. 31 patients, 14 men and 17 women, suffering from malignant melanoma

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were included in the study. During one of the regular check-ups after the excision of malignant melanoma patients were invited to participate in the study. Consenting participants completed the following questionnaires: General questionnaire, Subjective quality of life questionnaire, Impact of illness on the quality of life, Beck Depression Inventory and COPE (coping orientation to problems experienced).

General questionnaire consisted of 16 questions concerning age, gender, marital status, education, employment and medical history (time of diagnosis of melanoma, Clark and Breslow levels, results of the sentinel biopsy, family history of melanoma, history of burns, unprotected sun exposure and use of solarium, other illnesses and use of medicines).

A simple visual analogue scale ranging from 1 to 10 (the most widely used general quality of life measure) was used to measure subjective quality of life.

A simple visual analogue scale ranging from 1 to 10 was also used to measure impact of illness on the quality of life.

Beck Depression Inventory was used to assess depressive symptoms. BDI is a widely used clinical and research instrument. It is a 21 item self-report rating inventory measuring characteristic attitudes and symptoms of depression The scores range from 0 to 63, with the higher scores indicating a higher level of depression. Scores over 30 indicate a clinical depressive disorder.

The COPE Inventory (coping orientation to problems experienced) is a questionnaire developed by Carver, Scheier and Weintraub in 1989 to assess a broad range of coping responses. The full COPE is a 71-item measure that yields 17 factors that reflect one of the three coping styles: problem focused coping, emotion focused coping and avoidance. Answers are given on a 5-point Likert scale.

Statistical analysis was conducted using SPSS, version 12. Descriptive statistics were calculated for all variables, Student t-test was calculated to determine the differences between groups and Pearson's correlations were calculated to determine the relationships between variables.

Results

31 patients, 14 men and 17 women, suffering from malignant melanoma were included in the study. Participants were 33 to 71 years old, with the average age being 50 years. Most of the patients were married (84%), others were single (3%), divorced (3%), widows (6%) or living with a partner (3%). Most of the patients had secondary education (45%) or a university degree (40%). Majority of the patients were still working (61%). The duration of illness ranged from 1 to 14 years, with the average being 3 years. Clark levels ranged from 2 to 5 (M=3.07, SD=0.94). Breslow levels in millimetres ranged from 0.4 to 8.5 (M=2.17, SD=1.88). In 5 patients sentinel biopsy wasn't performed, and out of the 26 patients sentinel biopsy was positive in 9 (35%). Subjective quality of life ranged from 3 to 10, on a 1 to 10 scale. The average quality of life was 7.03 (SD=1.92). The impact of the illness on quality of life ranged from 1 to 10, on a 1 to 10 scale, with 1 meaning no impact at all and 10 meaning the biggest possible impact. The average impact was 3.87 (SD=2.42). There are no differences between men and women in the subjective quality of life, or in the impact melanoma has on patients' quality of life. Patients' mean total score on the Beck Depression Inventory was 8.87 (S.D.=8.85) with the minimum of 0 and maximum of 38. Most of the patients had results indicating minimal number of depressive symptoms (24–80%), and 4 patients had mild or moderate depression. Only two patients had a score indicating a severe depressive symptomatology. Women were significantly more depressed than men ($t=2.05$, $df=28$, $p<0.05$). Coping style most commonly used by the patients is problem focused solving (M=2.24, SD=0.71), with avoidance being the least used (M=1.41, SD=0.48). Specific techniques most commonly used are: accepting (M=2.61, SD=0.89), planning (M=2.55, SD=0.94), active coping (M=2.43, SD=0.83) and positive interpretation (M=2.41, SD=0.95). Techniques the least used are alcohol (M=0.85, SD=2,41) and physical isolation (M=0.97, SD=0.85). There are no differences between women and men in coping styles.

There is no correlation between the indicators of the severity of illness (Clark and Breslow levels, positive sentinel biopsy and the duration of illness) and any of the measures of psychological status. BDI scores are significantly correlated with quality of life – the higher the number of depressive symptoms, the lower quality of life ($r=-0.62$) and with the impact illness has on QoL – the higher the number of depressive symptoms, the more influence melanoma has on QoL ($r=0.50$). Avoidance as a coping style is correlated with the influence the illness has on patients' quality of life – the more patients use avoidance the less impact melanoma has on the quality of their life ($r=0.45$).Positive interpretation is positively correlated with the subjective quality of life ($r=0.41$) and negatively with the depression ($r=-0.42$). Physical isolation is positively correlated with the impact melanoma has on quality of life ($r=0.45$) and with the depression ($r=0.76$), but negatively correlated with quality of life ($r=-0.63$). Humor is positively correlated with quality of life ($r=0.48$).

Discussion

This study describes quality of life, depression and coping styles in patients with malignant melanoma. The average quality of life in our patients was 7.03 (SD=1.92), as measured on 1 to 10 scale. In most of the studies using the same quality of life scale on a healthy population, the average quality of life is usually around 7 or 8[10]. It is therefore surprising that the quality of life in our patients with such a serious diagnosis is not impaired at all. However, similar results have previously been shown in melanoma patients[11]. In line with that, in this study we

also showed that melanoma had a relatively small impact on patients quality of life M=3.87 (SD=2.42). Given the potential for lethality, it would be reasonable to expect a stronger impact of melanoma. A common reaction to malignant diseases, including melanoma, is depression[12,13]. Among our patients, only two of them had s result indicating clinical depression with most of the patients showing only mild depression. An average result on BDI among our patients indicated only a minimal number of depressive symptoms (M=8.87, SD=8.85). Some authors suggest that a result on a Beck Depression Inventory lower than 4 should be considered as a simulation[14]. Out of the 30 patients who completed BDI, 9 of them had a result lower than 4, which might indicate denial. Interestingly, it was suggested in previous research that patients with malignant melanoma denied being anxious[15]. Kneier and Temskhok[15] showed physiological evidence of the patients' anxiety (electrodermal activity) despite their reports of the contrary. They described this phenomenon as a Type C personality style, characterized by passivity and the suppression of negative emotions, which was often described as a potential predictor for illness. Coping includes attitudes and behaviors that help a person adapt when dealing with a threatening situation. Some authors suggest that certain types of coping are generally better than others, in a way that they lead to a better emotional reaction and better quality of life when dealing with a serious illness[8]. Usually, problem focused coping is considered as the best, most functional coping style. On the other hand, avoidance, while being adaptive at first, has a negative long-term effect. Coping style most commonly used by the patients in this study is problem focused solving (M=2.24, SD=0.71), with avoidance being the least used (M=1.41, SD=0.48). Specific techniques most commonly used are: accepting, planning, active coping and positive interpretation, while the techniques the least used are use of alcohol and physical isolation. Coping style consists of different ways of thinking and behaving that aim to address a stressful situation in a constructive manner and safeguard one's emotional state. More common use of the positive, functional coping styles might be might be one of the reasons why the illness didn't have a more severe influence on our patients' psychological status. For example: positive interpretation is positively correlated with quality of life and negatively with depression – the more patients use positive interpretation, the better quality of life and lower depression. Also, The more patients use humor, the better quality of life. Another possible explanation for the mild emotional reaction to melanoma might lay in patients' illness perceptions. Patients cluster their ideas about their illness around five coherent components: identity, cause, timeline, consequences and cure[16]. These components together make up the patient's perception of their illness. The components provide a framework for patients to make sense of their symptoms, assess health risk, and direct action and coping. Patients' illness perceptions have shown strong correlations to their emotional reaction to illness and quality of life[16]. Further research should focus on illness perceptions in patients with melanoma in order to better understand their emotional state and reactions to their illness.

Conclusion

Malignant melanoma has a medium influence on patients' psychological status and quality of life. The most "constructive" coping style – problem focused coping is the mostly used style by the patients, which might be one of the reasons why the illness didn't have a more severe influence on patients' psychological status. Still, obtained results are somewhat surprising, considering the seriousness of malignant melanoma. The reason for that might lay in the wrong perception of melanoma; therefore, patients' illness representations should be investigated in further research.

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PSIHOLOŠKI STATUS I SUOČAVANJE S BOLEŠĆU KOD PACIJENATA S MALIGNIM MELANOMOM

S A Ž E T A K

Maligni melanom može imati značajan utjecaj na psihološki status bolesnika. Taj utjecaj je snažan i dugotrajan, a neke od najčešćih reakcija su depresija, anksioznost i snižavanje kvalitete života. Stilovi suočavanja sa stresom mogu značajno utjecati na intenzitet i vrstu emocionalne reakcije na bolest, kao i na kvalitetu života. Cilj ovog istraživanja bio je ispitati emocionalne reakcije, kvalitetu života i stilove suočavanja sa stresom kod bolesnika koji boluju od melanoma. 31 bolesnik sa melanomom sudjelovao je u ovom istraživanju čiji rezultati pokazuju da melanom ima srednje snažan utjecaj na psihološki status i kvalitetu života bolesnika. Stil suočavanja sa stresom usmjeren na rješavanje problema najčešći je kod ispitanih bolesnika, što može biti jedno od objašnjenja relativno blagog utjecaja melanoma na njihov psihološki status.