

# Psychological Impact of Melanoma, How to Detect, Support and Help

Aleksandra Vojvodic<sup>1</sup>, Tatjana Vlaskovic-Jovicevic<sup>2</sup>, Petar Vojvodic<sup>2</sup>, Jovana Vojvodic<sup>2</sup>, Mohamad Goldust<sup>3</sup>, Zorica Peric-Hajzler<sup>4</sup>, Dusica Matovic<sup>4</sup>, Goran Sijan<sup>5</sup>, Nenad Stepic<sup>5</sup>, Van Thuong Nguyen<sup>6</sup>, Michael Tirant<sup>7</sup>, Uwe Wollina<sup>8</sup>, Torello Lotti<sup>9</sup>, Massimo Fioranelli<sup>10</sup>

<sup>1</sup>Department of Dermatology and Venereology, Military Medical Academy, Belgrade, Serbia; <sup>2</sup>Clinic for Psychiatric Disorders "Dr. Laza Lazarevic", Belgrade, Serbia; <sup>3</sup>Guglielmo Marconi University, Rome, Italy; <sup>4</sup>Military Medical Academy, Belgrade, Serbia; <sup>5</sup>Clinic for Plastic Surgery and Burns, Military Medical Academy, Belgrade, Serbia; <sup>6</sup>Vietnam National Hospital of Dermatology and Venereology, Hanoi, Vietnam; <sup>7</sup>Guglielmo Marconi University, Rome, Italy; <sup>8</sup>Department of Dermatology and Allergy, Städtisches Klinikum Dresden, Dresden, Germany; <sup>9</sup>Department of Dermatology, Guglielmo Marconi University, Rome, Italy; <sup>10</sup>Department of Nuclear Physics, Sub-nuclear and Radiation, G. Marconi University, Rome, Italy

## Abstract

**Citation:** Vojvodic A, Vlaskovic-Jovicevic T, Vojvodic P, Vojvodic J, Goldust M, Peric-Hajzler Z, Matovic D, Sijan G, Stepic N, Nguyen VT, Tirant M, Wollina U, Lotti T, Fioranelli M. Psychological Impact of Melanoma, How to Detect, Support and Help. *Open Access Maced J Med Sci.* 2019 Sep 30; 7(18):3043-3045. <https://doi.org/10.3889/oamjms.2019.770>

**Keywords:** Melanoma; Psychology; Depression; Anxiety

**\*Correspondence:** Massimo Fioranelli, Department of Nuclear Physics, Sub-nuclear and Radiation, G. Marconi University, Rome, Italy. E-mail: [massimo.fioranelli@gmail.com](mailto:massimo.fioranelli@gmail.com)

**Received:** 13-Jun-2019; **Revised:** 04-Jul-2019; **Accepted:** 05-Jul-2019; **Online first:** 30-Aug-2019

**Copyright:** © 2019 Aleksandra Vojvodic, Tatjana Vlaskovic-Jovicevic, Petar Vojvodic, Jovana Vojvodic, Mohamad Goldust, Zorica Peric-Hajzler, Dusica Matovic, Goran Sijan, Nenad Stepic, Van Thuong Nguyen, Michael Tirant, Uwe Wollina, Torello Lotti, Massimo Fioranelli. This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0)

**Funding:** This research did not receive any financial support

**Competing Interests:** The authors have declared that no competing interests exist

Incidence of melanoma is increasing every year. A few years ago, we could not speak about long term survivors with melanoma. Chemotherapy did not give a good effect in the past. Metastasis occurred very rapidly, and the progression of melanoma was very fast. But now, with new forms of therapy, especially immunotherapy and target therapy, for the first time, we have long-time survivors. For the prognosis of melanoma, the most important is the stage in which melanoma is detected. For all dermatologists, it is very important to be aware of the psychological impact of melanoma on patients. Dermatologists should recognise psychological disorders. Several different scales can be used for the detection of depression and anxiety – some of them are completed by researchers, some of them are completed by patients, and also, we have combined scales. The need for adequate social and family support as well as psychological help to achieve better coping with illness is necessary. Learning techniques to overcome fear and stress would help in better functioning of all affected, regardless of the stage of the disease. The most severe cases of anxiety and depression, in addition to psychotherapeutic interventions, should also be considered medication therapy.

## Introduction

Incidence of melanoma is increasing every year. There are different sources with different data, very controversial, but it is evident increasing in incidence, especially in men over the age of 60. It is more frequent in young girls than in young men probably because of the use of the sunbeds. But, in Australia, New Zealand, the USA, North and Eastern Europe incidence is the highest. The fair-skinned, overexposed white population is in the greatest risk.

A few years ago, we could not speak about long term survivors with melanoma. Chemotherapy did not give a good effect in the past. Metastasis

occurred very rapidly, and the progression of melanoma was very fast. In young people, progression was even more aggressive. Living with melanoma was not considered and occurred very rarely. But now, with new forms of therapy, especially immunotherapy and target therapy, for the first time, we have long-time survivors. For the prognosis of melanoma, the most important is the stage in which melanoma is detected. If it is detected in the IA stage 5-years survival is 97%, but if it is detected in the IV stage 5-years survival is only 15%. Living with melanoma is not easy, even if it is detected in the first stage. Follow up procedures every 3 or 6 months, laboratory testing, different examinations, surgery interventions, skin checking and other follow up procedures are very hard for all patients. Fear of the

progression of the disease is always present, even if it is diagnosed in the IA stage. Sometimes, but not so frequently, depression is also detected. We can mostly detect depressive symptoms, or minor depressive disorder and very rarely major depressive disorder.

### The most frequent psychological disorders and scales

For all dermatologists, it is very important to be aware of the psychological impact of melanoma on patients. Dermatologists should recognise psychological disorders. Depressed mood, loss of interest/pleasure, significant weight loss or weight gain without trying to, insomnia or hypersomnia, psychomotor agitation/retardation, daily fatigue or loss of energy, feelings of worthlessness or excessive guilt, inability or difficulty with thinking, concentrating, and making decisions, suicidal thoughts, plans to commit suicide, or a suicide attempt. Sometimes, very rarely, we can detect symptoms of psychosis-delusions or hallucinations. For the diagnosis of major depressive disorders, it is necessary coexistence of 5-9 symptoms that last at least 2 weeks. For diagnosis of minor depressive disorder coexistence of 2 / 4 symptoms that last at least 2 weeks are necessary. Dysthymic disorder is different, and it is characterised by the depressive mood that lasts longer than 2 years, with mostly 2-6 symptoms.

Several different scales can be used for detection of depression – some of them are completed by researchers, some of them are completed by patients, and also, we have combined scales. Some of the scales completed by researchers are the Hamilton Depression Rating Scale, Montgomery-Åsberg Depression Rating Scale, Raskin Depression Rating Scale. But for dermatologists and screening programs, the most important are scales completed by patients. The Beck Depression Inventory is a scale that is in use very frequently. It consists of a 21-question, and it is self-report inventory that covers different symptoms that are present in depression such as fatigue, lack of interest in sex, weight loss, feelings of guilt, hopelessness, etc. The scale is completed by patients to identify the presence and severity of symptoms consistent with the DSM-IV diagnostic criteria. The next very frequently used self-reported questionnaire is The Patient Health Questionnaire (PHQ). The Patient Health Questionnaire-9 (PHQ-9) is a self-reported, 9-question version of the Primary Care Evaluation of Mental Disorders and it is very useful for quick screening. The Patient Health Questionnaire-2 (PHQ-2) is a shorter version of the PHQ-9 with only two questions to assess the presence of a depressed mood and a loss of interest or pleasure in routine

activities. If it is detected, further testing is needed. Other scales that can be used are The Geriatric Depression Scale (GDS), Zung Self-Rating Depression Scale, The Clinically Useful Depression Outcome Scale (CUDOS), The Inventory of Depressive Symptomatology (IDS), The Mood and Feelings Questionnaire (MFQ), The Quick Inventory of Depressive Symptoms (QIDS), The Jacobson Joy Inventory (JJI)-Research in process-Banner University Medical Center, The Positive Health Questionnaire (PHQ) Research in process-Banner University Medical Center, etc.

Anxiety is very frequent, and it can be detected in almost all patients with melanoma. It is a feeling of apprehension caused by anticipation of an ill-defined threat or danger that is not based. Components of anxiety are emotional, cognitive anticipation (memory), behavioural and somatic. There are different scales for measuring level of anxiety – Brief fear negative evaluation scale / BFNE, depression anxiety stress scales-DASS-21, Generalized anxiety disorder questionnaire IV – GADQ-IV, generalized anxiety disorder-GAD 7 (Table 1), Hamilton Anxiety rating scale – HARS, Leibowitz social anxiety scale – LSAS, overall anxiety severity and impairment scale (OASIS), hospital anxiety and depression scale – HADS, patient health questionnaire 4 – PHQ-4, Penn state worry questionnaire – PSWQ, etc.

**Table 1: Depression and symptoms**

Major depressive disorder	Minor depressive disorder	Dysthymia	Symptoms
2 weeks duration	2 weeks duration	2 years duration	1. depressed mood
Depressed mood or loss of interest	Depressed mood or loss of interest	Depressed mood	2. loss of interest/pleasure
			3. significant weight loss or weight gain without trying to
			4. insomnia or hypersomnia
			5. psychomotor agitation/retardation
			6. daily fatigue or loss of energy
			7. feelings of worthlessness or excessive guilty
			8. inability or difficulty with thinking, concentrating and making decisions
			9. suicidal thoughts, plans to commit suicide, or a suicide attempt
5 of 9 Symptoms	2-4 of 9 Symptoms	2-6 Symptoms	

For dermatologists, for fast screening, GAD-7 and BAI are very useful. They are self-reported questionnaires, and very fast, and with a high-quality dermatologist can detect the level of anxiety (Table 2).

**Table 2: Generalized anxiety disorder- GAD 7**

Over the last 2 weeks, how often have you been bothered by the following problems?	Not at all sure	Several days	Over half the days	Nearly every day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it's hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3
Add the score for each column				
Total Score (add your column scores) =				

If dermatologist detects any level of anxiety or

some of depressive symptoms, it is necessary to advise patient to visit psychologist, psychotherapist or psychiatrist. How patient will accept the disease depends very much on their mechanisms of defence. Also, support and help are necessary, the first from the family members, friends, colleges, but also from doctors/ dermatologists, and at the and professional help from psychiatrists, psychologists and psychotherapists.

There are described mostly three general theoretical coping styles in the psycho-oncology literature: 1) Active-behavioral coping – this coping style refers to overt behavioural attempts to deal directly with cancer and its effects; 2) Active cognitive coping, this coping style includes one's attitudes, beliefs, and thoughts about cancer; 3) Avoidance coping, this coping style refers to attempts to actively avoid the problem or indirectly reduce emotional tension through the use of distraction. All these mechanisms of coping are useful but not equally.

In conclusion, the need for adequate social and family support as well as psychological help in order to achieve better coping with illness is necessary. Learning techniques to overcome fear and stress would help in better functioning of all affected, regardless of the stage of the disease. The most severe cases of anxiety and depression, in addition to psychotherapeutic interventions should also be considered medication therapy. The need for a multidisciplinary team that would be involved in monitoring the patient from the moment of the establishing the diagnosis of melanoma is of exceptional importance and include dermatologist, surgeon, radiotherapist, neurologist and psychiatrist, psychologist, psychotherapist.

## References

1. Vojvodic A, Dedic G. Depression, anxiety and quality of life in patients with melanoma. *VSP*, 2018. <https://doi.org/10.2298/VSP180414185V>
2. Vojvodic A, Dedic G. Quality of Life and Anxiety in Military Personnel. *SJECR*, 2017.
3. Lotti T, Bruscinò N, Hercogova J, de Giorgi V. Controversial issues on melanoma. *Dermatol Ther*. 2012; 25(5):458-62. <https://doi.org/10.1111/j.1529-8019.2012.01524.x> PMID:23046025
4. Campolmi E, et al. Melanoma diagnosis: traumatic impact of the event on the patient. *G Ital Dermatol Venereol*. 2019.
5. de Giorgi V, Gori A, Grazzini M, Rossari S, Scarfi F, Corciova S, Verdelli A, Lotti T, Massi D. Estrogens, estrogen receptors and melanoma. *Expert Rev Anticancer Ther*. 2011;11(5):739-47. <https://doi.org/10.1586/era.11.42> PMID:21554049
6. De Giorgi V, Grazzini M, Gandini S, Benemei S, Lotti T, Marchionni N, Geppetti P. Treatment with  $\beta$ -blockers and reduced disease progression in patients with thick melanoma. *Arch Intern Med*. 2011; 171(8):779-81. <https://doi.org/10.1001/archinternmed.2011.131> PMID:21518948
7. Rogiers A, Boekhout A, Schwarze JK, Awada G, Blank CU, Neyns B. Long-Term Survival, Quality of Life, and Psychosocial Outcomes in Advanced Melanoma Patients Treated with Immune Checkpoint Inhibitors. *J Oncol*. 2019. <https://doi.org/10.1155/2019/5269062> PMID:31182961 PMID:PMC6512024
8. Heino PJ, Mylläri PH, Jahkola TA, Sintonen H, Luoma ML, Räsänen P, Roine RP. Long-Term Quality of Life of Melanoma Survivors Is Comparable to that of the General Population. *Anticancer Res*. 2019; 39(5):2633-2640. <https://doi.org/10.21873/anticancer.13387> PMID:31092462
9. O'Reilly A, et al. An immunotherapy survivor population: health-related quality of life and toxicity in patients with metastatic melanoma treated with immune checkpoint inhibitors. *Support Care Cancer*. 2019. <https://doi.org/10.1007/s00520-019-04818-w>
10. Dieng M, et al. Psychoeducational Intervention to Reduce Fear of Cancer Recurrence in People at High Risk of Developing Another Primary Melanoma: Results of a Randomized Controlled Trial. *J Clin Oncol*. 2016; 34(36):4405-4414. <https://doi.org/10.1200/JCO.2016.68.2278> PMID:27998215
11. Fioranelli M, Rocchia MG, Pastore C, Aracena CJ, Lotti T. Completion dissection or observation for sentinel-node metastasis in melanoma. *Dermatol Ther*. 2017; 30(6). <https://doi.org/10.1111/dth.12544> PMID:28836714
12. Vaccaro M, Lentini M, Lotti J, Fioranelli M, Rocchia MG, Lotti T, Guarneri C. Hard to face: cutaneous malignant melanoma. *J Biol Regul Homeost Agents*. 2017; 31(2):53-55.
13. Chokoeva AA, Tchernev G, Wollina U, Lotti T. Cutaneous melanoma: how to improve the quality of diagnosis and treatment - a regional experience. *Dermatol Ther*. 2015; 28(6):344-5. <https://doi.org/10.1111/dth.12278> PMID:26279288
14. Vojvodic A, Dedic G, Djukic-Dejanovic S. Defense mechanisms and quality of life in military personnel with burnout syndrome. *VSP*. 2019. 76(3):298-306. <https://doi.org/10.2298/VSP170304114V>
15. Smith K. Mental health: a world of depression. *Nature*. 2014; 515(7526):181. <https://doi.org/10.1038/515180a> PMID:25391942
16. Tas F, Karabulut S, Guveli H, Kurul S, Erturk K, Guveli M, Kinik H. Assessment of Anxiety and Depression Status in Turkish Cutaneous Melanoma Patients. *Asian Pac J Cancer Prev*. 2017; 18(2):369-373.
17. Brown SL, Hope-Stone L, Heimann H, Damato B, Salmon P. Predictors of anxiety and depression 2 years following treatment in uveal melanoma survivors. *Psychooncology*. 2018; 27(7):1727-1734. <https://doi.org/10.1002/pon.4715> PMID:29601654
18. Miniati M, et al. Quality of Life, Depression, and Anxiety in Patients with Uveal Melanoma: A Review. *J Oncol*. 2018:5253109. <https://doi.org/10.1155/2018/5253109> PMID:29755525 PMID:PMC5883983