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Anxiety, Depression, and Quality of Life in Patients With the Diagnosis of Metastatic Uveal Melanoma

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Background

Awareness of a patient's anxiety, depression, and quality of life (QOL) in those with metastatic uveal melanoma (MUM) can influence care that meets patients' bio-psycho-social-spiritual needs.

Objectives

The primary objective of this pilot study was to measure the level of anxiety, depression, and QOL in patients with MUM. The secondary objective was to explore potential differences in the levels of anxiety, depression, and QOL by gender, age range, time elapsed between the initial diagnosis of uveal melanoma and metastasis, and duration of illness since metastasis.

Research Questions

1. In patients with MUM aged 18 and older, what is the level of anxiety, depression, and perceived QOL?
2. How many patients with MUM had at least borderline anxiety (scores ≥8), at least borderline depression (scores ≥8), and a decrease in global QOL (scores <7)?

Hypotheses

This pilot study was a hypothesis-generating study for a potential larger and powered study that would test the following research hypotheses:

In patients with MUM:

1. There is a difference between gender and scores of: anxiety, depression, and QOL.
2. There is a difference between age range and scores of: anxiety, depression, and QOL.
3. There is a difference between the time elapsed between the initial diagnosis of uveal melanoma and metastasis and: anxiety scores, depression scores, QOL scores.
4. There is a difference between the duration of illness since metastasis and: anxiety scores, depression scores, QOL scores.

Theoretical Foundation

The psychosocial oncology framework provides a useful model that supports the value of exploring the level of anxiety, depression, and QOL in patients with MUM as well as tailoring a psychosocial management plan to match patient's needs to improve QOL (Turnbull et al., 2012).

This framework provides 8 major domains which aim to raise awareness and understanding of psychosocial care (Domain A), provide standard of care for screening and management of psychosocial needs (Domain B), delineate expectation of health care providers in terms of education, training, and communication of psychosocial issues (Domain C), define patient and family education (Domain D), explain quality oversight and monitor progress of psychosocial services (Domain E), enlighten workforce competencies for cancer services (Domain F), standardize transdisciplinary classification for psychosocial health services (Domain G), and promote psychosocial research (Domain H) (Turnbull et al., 2012).

Methods Research Design

A descriptive-comparative survey design was used in this research study.

Study Sample

The target population was all patients with MUM, aged 18 years and older, residing in the United States, and receiving care at a Mid-Atlantic referral practice of MUM. There were 136 patients.

Sample Size

In this convenience sampling, 70 patients with MUM presented at this institution during the period of September 1 - December 1, 2017. Patients who could not read the surveys were included and completed the survey with the assistance of the investigators who read questions to them. Patients who did not speak English were excluded from this study.

Setting

The setting was a large teaching hospital in the Mid-Atlantic, a referral practice of MUM.

Instruments and Measurement

The demographic data sheet, the hospital anxiety and depression scale (HADS), and the World Health Organization Quality of Life (WHOQOL)-BREF questionnaire were used to collect a one data collection point on the same day during the survey period. No identifiable information was collected on the survey. At the end of the survey, a handmade thank you gift was given to participants. Permission to use HADS and WHOQOL-BREF questionnaire were granted by GL Education Group Limited and World Health Organization, respectively.

Hospital Anxiety and Depression Scale

The HADS encompasses seven questions for anxiety and seven questions for depression (Stern, 2014). Scores for each subscale are 0 to 21 and are 4-point Likert scale with a range of 0-3. The level of anxiety or depression is estimated to be normal (0-7), borderline abnormal (score 8-10), and abnormal (score 11-21) (Bjelland, Dahl, Haug, & Neckelmann, 2002; Zigmond & Snaith, 1983). A score of ≥8 for anxiety has a specificity of 0.78 and a sensitivity of 0.9 whereas the same score for depression has a specificity of 0.79 and a sensitivity of 0.83 (Bjelland et al., 2002). Thus, a score of ≥8 for anxiety or depression should alert for a thorough bio-psychosocial evaluation.

World Health Organization Quality of Life-BREF

The WHOQOL-BREF is a 26-item version consisting of seven items in physical health (QOL domain 1), six items in psychological health (QOL domain 2), three items in social relationships (QOL domain 3), eight items in environmental health (QOL domain 4), and two items in global QOL and general health (WHO, 2004). Each item is Likert scaled from 1 to 5 on a response scale. Scores range from 7 to 35 in domain 1, from 6 to 30 in domain 2, from 3 to 15 in domain 3, from 8 to 40 in domain 4, and from 2 to 10 in global QOL (Skevington et al., 2004; WHO, 2004). A higher score in each domain corresponds to a better QOL (WHO, 2004).

Results Reliability testing

In this study, a measure of the internal reliability of the HADS showed Cronbach's alpha of 0.81 for anxiety and 0.83 for depression. The internal reliability of the WHOQOL-BREF questionnaire showed Cronbach's alpha of 0.84 for domain 1, 0.89 for domain 2, 0.90 for domain 4, and 0.56 for global QOL. It also showed very low internal consistency between the 3 items in domain 3 (Cronbach's alpha of 0.004) due to item 21 asking "How satisfied are you with your sex life?" If this item was deleted, Cronbach's α would have been 0.68 for domain 3.

Demographic and Clinical Characteristic of the Sample

There were 136 eligible patients with MUM. Among them, 70 presented to this institution during the allotted three- month survey period and were offered to complete the survey. Among them, 65 completed the survey with a response rate of 93%. Of the total sample, the majority were female (56.9 %, n=37), older than 60 years (55.4%, n=36), white (98.5%, n=64), had a college education or above (78.5%, n=51), non-employed (56.9%, n=37), married (80%, n=52), parents of children (83.1%, n=54), but did not have a child less than 18 years (73.8%, n=48).

The time to metastasis was <1 year in 10.8% (n=7), 1 year to <5 years in 61.5% (n=40), <5 years in 72.3% (n=47), and ≥ 5 years in 27.7% (n=18). The duration of illness since metastasis was <1 year in 29.2% (n=19), 1 year to <5 years in 55.4% (n=36), and ≥ 5 years in 15.4% (n=10).

Research Questions Results

In our total sample, the mean anxiety score was 6.05 ± 3.64, the mean depression score was 3.48 ± 3.27, the mean domain 1 score was 27.28 ± 5.38, the mean domain 2 score was 23.52 ± 4.59, the mean domain 3 score was 11.71 ± 2.35, the mean domain 4 score was 34.40 ± 5.13, and the mean score for global QOL was 7.22 ± 1.57. Among respondents, 30.8% (n=20) had anxiety scores ≥8, 13.8% (n=9) had depression scores ≥ 8, and 32.3% (n=21) had global QOL scores <7 indicating at least borderline anxiety, at least borderline depression, and decreased QOL scores.

Hypotheses Testing Results

Hypothesis testing 1 found no significant difference in anxiety, depression, and QOL scores by gender.

Hypothesis testing 2 revealed that participants aged 18 to ≤60 years had higher anxiety scores (7.52 ± 3.65) than participants > 60 years (4.86 ± 3.21; p=0.003). Also, younger group had lower QOL domain 4 scores of environmental health (32.48 ± 5.23) than participants > 60 years (35.94 ± 4.55; p=0.006). No significant differences were found in depression scores, QOL domain 1-3, or global QOL scores by age groups.

Hypothesis testing 3 found no significant differences in anxiety scores, depression scores, or QOL scores based on the time to metastasis.

Hypothesis testing 4 revealed significant difference in anxiety scores among the three groups by the duration of illness since metastasis (p=0.01). Group variances were homogenous. The Least Significant Difference (LSD) Post hoc analysis revealed that anxiety scores were higher in the < 1 year group (7.79 ± 3.72) compared to the 1 year to <5 years group (5.75 ± 3.45; p=0.04), and were higher in the < 1 year group (7.79 ± 3.72) compared to the ≥ 5 years group (3.80 ± 2.78; p=0.004).

Moreover, our results showed difference in QOL domain 1 scores for physical health among the three groups (p=0.05). LSD Post hoc analysis revealed that QOL domain 1 scores were only significantly higher in the < 1 year group (29.11 ± 4.03) compared to the 1 year to <5 years group (25.81 ± 5.85; p=0.03). No significant differences were found in depression scores, QOL domain 2-4, or global QOL by the duration of illness since metastasis.

Conclusions

Up to 30% of participants had at least borderline anxiety and a decreased global QOL while up to 10% had at least borderline depression. These findings support the integration of bio-psycho-social-spiritual practices in the care of patients with MUM.

Title:
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Abstract Summary:

Psychosocial needs of patients with metastatic uveal melanoma (MUM) have not been routinely assessed and addressed in clinical practice. Yet, awareness of patients' anxiety, depression, and perceived quality of life in those with MUM can influence care that meets patients' bio-psycho-social-spiritual needs.

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