



aGvHD, cGvHD, GvHD Prophylaxis

Coping and psychological factors associated with quality of life in cGvHD

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Approximately 40%–60% of patients who undergo hematopoietic cell transplantation (HCT) are affected by chronic graft-*versus*-host disease (cGvHD) at around 13–18 months after transplant.¹ cGvHD often affects quality of life (QOL), with many patients reporting symptoms of depression and anxiety.

The way patients handle these symptoms have been related to their physical functioning, perceived social support, coping strategies and symptom burden which in turn may impact on QOL.²

Studies looking into the effect of cGvHD on QOL are lacking, and so Jamie Jacobs, from the Center for Psychiatric Oncology and Behavioural Sciences, Massachusetts General Hospital (MGH), Boston, US, and colleagues conducted a prospective, longitudinal study in patients with moderate to severe cGvHD. In this study they correlated anxiety, depression and predictors of QoL with four factors: coping strategies, perceived social support, physical functioning, and symptom burden.

Study design

Potential patients were identified by screening the electronic health record (EHR) for recipients of HCT receiving care at MGH Cancer Center.

Patients were eligible at any time after allogeneic HCT, and needed to have a diagnosis of moderate to severe GvHD. Patients needed to be over the age of 18, and required proficiency in English, with little to no interpreter aid.

Self-report assessments, using tablet computers or paper questionnaires, were completed by eligible patients within 72 hours of enrollment, and at three- and six-months after enrollment.

Measures

Sociodemographic and clinical factors

Information from the EHR about patients' age, race, sex, ethnicity and education were collected, along with data on diagnosis, clinical characteristics and transplant type.

Anxiety and depression

The Hospital Anxiety and Depression Scale (HADS) was used to measure symptoms of depression and anxiety. Patients rated how they felt in the last week using a 4-point Likert scale.

Quality of life (QOL)

The four subscales (physical, functional, emotional, social) of the Functional Assessment of Cancer Therapy-Bone Marrow Transplant (FACT-BMT) assessed QOL, through 47-items on a five-point Likert scale.

Symptom burden

The Lee Symptom Assessment Scale (LSAS), consisting of a 30-item symptom assessment, was used to measure the negative effects of cGvHD, highlighting symptom burden.

Physical functioning

A 94-item self-assessment on physical fitness and energy expenditure, called the Human Activity Profile (HAP), was used to assess patients' physical functioning.

Social support

The Medical Outcomes Study Social Support Survey (MOS-SSS) was used to assess perceived social support, and consisted of 19 items, with four subscales measuring affectionate support, practical, informational and emotional, and positive social interactions.

Coping strategies

The process through which patients manage, adjust and adapt to a stressful situation is an active process called coping,³ and can be achieved through task-oriented coping, or avoidance-oriented coping.

The revised 66-item Coping Inventory for Stressful Situation (CISS) was used to measure task-oriented, negative emotion-oriented, and avoidance-oriented coping. A five-point Likert scale is used by the CISS, with higher scores indicating greater use of the respective coping style.

Results

- 75 patients were selected based on screening of EHRs between July 2015 and July 2016
 - Thirteen patients were excluded, nine due to having mild cGvHD, four for not being proficient in English
 - Six patients have not been approached; in three patients the physician refused their participation, three patients missed their appointment
- 56 eligible patients, 52 patients agreed to take part
- Average age, 63 years (range, 27–77), majority female (31/52, 59.6%)
- Most patients were in relationships (37/52, 71.2%)
- Majority of patients had a diagnosis of moderate cGvHD (37/52, 71.2%)
- N=45/52 completed the three-month assessments, n=44/52 completed the six-month assessments

Patients reported elevated depression symptoms over time: 32.7% at baseline, 31.1% at three-months and 37.8% at six-months. Symptoms of depression at baseline were more frequent in patients reporting greater use of negative emotion-oriented coping and less use of task-oriented coping. In addition, baseline symptoms of depression were associated with

worse physical functioning and greater symptom burden, but not avoidance-oriented coping or perceived social support.

At baseline, 30.1% (n=16/52) patients reported clinically significant anxiety symptoms, which decreased to 20.0% (n=9/45) at three-months and increased again to 36.4% (n=16/44) at six-months. Adjusted for cGvHD severity, sex, and time since diagnosis, patients with more use of negative-oriented coping and worse physical functioning had greater symptoms of anxiety at baseline. Baseline levels of anxiety were not related to symptom burden or perceived social support.

QOL reported by patients remained stable over the period studied, with patients using more negative emotion-oriented coping, and less task-oriented coping, reporting worse QOL. Also, patients with high symptom burden, worse physical functioning and less perceived social support reported poorer QOL.

These results were consistent when the analyses were repeated with longitudinal anxiety and depression as outcomes in place of QOL.

Conclusion

This trial is the first prospective study to highlight the high rates of anxiety and symptoms of depression in patients with cGvHD. The researchers mentioned that results also show an association between higher depression and anxiety, and greater symptom burden in patients, and highlight the need for screening, referral and intervention.

Limitations of the study include its relatively small sample size, and the fact that most patients were Caucasian, English-speaking participants, thus making it more difficult to generalize results. Despite this, and that the analysis did not account for depression or anxiety prior to HCT, results of the longitudinal examination of anxiety, depression and QOL,⁴ highlighted substantial psychosocial and physical needs of patients with cGvHD. Further investigation should focus on evidence-based interventions that promote acquisition of skills to improve QOL of patients with cGvHD.

References

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