Symptoms, Cytokines, and Quality of Life in Patients Diagnosed With Chronic Graft-Versus-Host Disease Following Allogeneic Hematopoietic Stem Cell Transplantation

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Purpose/Objectives: To describe associations among symptoms, cytokines, and quality of life (QOL) of patients with chronic graft-versus-host disease (cGVHD).

Design: Prospective, cross-sectional, cohort.

Setting: The bone marrow transplantation unit at a National Cancer Institute–designated cancer center in Virginia.

Sample: 24 adults diagnosed with cGVHD.

Methods: Data were collected for demographic factors, symptoms, and QOL from medical record and validated questionnaires. Serum was analyzed for cytokine levels.

Main Research Variables: cGVHD, symptoms, cytokines, C-reactive protein, and QOL.

Findings: Participants reported multiple, concurrent symptoms. Cytokine levels were higher in participants with symptoms versus those without symptoms. Cytokine interleukin-6 correlated with lack of energy and dry mouth. Negative correlations were noted between QOL and symptoms.

Conclusions: Findings demonstrated multiple concurrent symptoms present in this sample and significant relationships among symptoms, cytokines, and QOL.

Implications for Nursing: cGVHD is a serious condition affecting QOL in many individuals after bone marrow transplantation for many different cancers. Results from this pilot study indicate that patients experience multiple symptoms, including sexual dysfunction, that adversely affect QOL. Better understanding of the interrelated symptoms of cGVHD and the biomarkers associated with these symptoms may lead to targeted symptom management interventions.

Key Words: chronic graft-versus-host disease; symptoms; cytokines; inflammation; C-reactive protein; quality of life; cancer; bone marrow transplantation

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