

## FEATURE ARTICLE

# Care of Patients Undergoing Extracorporeal Photopheresis to Treat Chronic Graft-Versus-Host Disease: Review of the Evidence

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Late immune dysregulation following allogeneic hematopoietic cell transplantation (HCT) is known as chronic graft-versus-host disease (GVHD), which is a major cause of mortality and morbidity after HCT, and a rise in its incidence is predicted. Better therapies are being sought to manage chronic GVHD and limit patients' exposure to corticosteroids. Extracorporeal photopheresis (ECP), an immune-modulating therapy, has shown preliminary safety and efficacy in treating chronic GVHD. However, access to ECP is limited, care is costly, and the optimal frequency, duration, and durability of response are unknown. Although nurses who care for patients with chronic GVHD recognize its adverse impact on patients' quality of life, limited evidence exists about the selection of patients most likely to benefit from ECP therapy and from the supportive care provided to them. A multidisciplinary approach is needed to define the desired outcomes of ECP therapy and to determine the evidence base for nursing management approaches.

### At a Glance

- ◆ A late immunologic complication of allogeneic stem cell transplantation, chronic graft-versus-host disease (GVHD) is believed to arise from histocompatibility mismatching between host and recipient T cells and abnormal thymic immune reconstitution in the host.
- ◆ Extracorporeal photopheresis is an immune-modulating therapy used to treat patients with chronic GVHD.
- ◆ A review of the adverse events reported in the literature reveals the need to develop evidence-based nursing practices to promote the care of this complex patient population.

Despite recent advancements in allogeneic hematopoietic cell transplantation (HCT), chronic graft-versus-host disease (GVHD) remains a major cause of morbidity and mortality following transplantation (Mitchell, 2004). Improved conditioning regimens and supportive care have allowed allogeneic HCT to be applied to a larger variety of diseases and patients than previously was possible and contributed to a predicted increase in the rate of chronic GVHD (Vogelsang, 2001).

Chronic GVHD adversely impacts transplant survivors' quality of life (Baker et al., 2004; Lee, Cook, Soiffer, & Antin, 2002; Sutherland et al., 1997). Current clinical research targeted at

drugs, graft manipulation, and phototherapy is attempting to decrease the occurrence of chronic GVHD (Jacobsohn & Vogelsang, 2002; Mitchell, 2004). Extracorporeal photopheresis (ECP) is a treatment option or adjunct that may allow tapering or discontinuation of immunosuppressive medications to decrease associated risks. This article reviews chronic GVHD pathophysiology, ECP therapy, and the evidence base for current practices employed in caring for patients.

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