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UV Treatment of Chronic Skin Graft-versus-Host Disease – Focus on UVA1 and Extracorporeal Photopheresis

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Abstract

Chronic graft-versus-host disease (GVHD) is a serious and life-threatening complication after allogeneic hematopoietic stem cell transplantation. Cutaneous manifestations such as lichenoid or sclerotictype skin changes have been frequently observed in these patients. UVA1 phototherapy appears as a very effective treatment option for treatment-refractory lichenoid and sclerodermatous GVHD. Substantial improvements can often be achieved within 8–12 weeks of treatment allowing for subsequent reduction or withdrawal of immunosuppressive medications. UVA1 treatment acts via a local effect and is therefore only indicated for cutaneous manifestations of GVHD. In patients with multiorgan involvement by chronic GVHD, extracorporeal photopheresis is an efficacious and safe secondline therapy for steroid-refractory disease in both pediatric as well as adult patients. Besides high response rates in cutaneous and extracutaneous manifestations of chronic GVHD, a substantial corticosteroid-sparing effect and improved survival rates have been reported in patients given extracorporeal photopheresis treatment.

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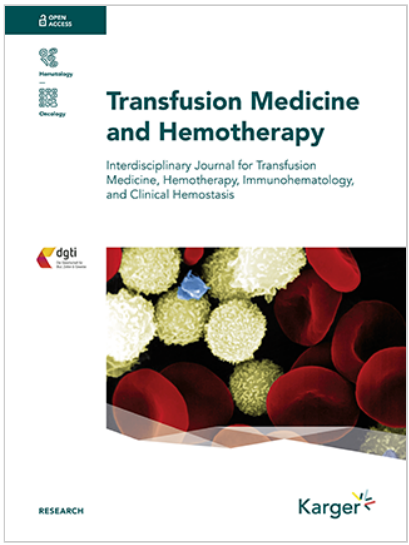

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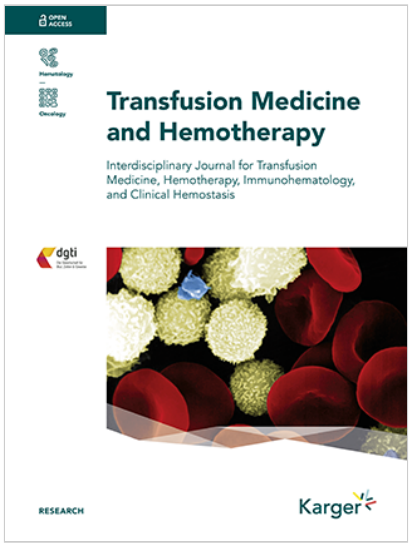

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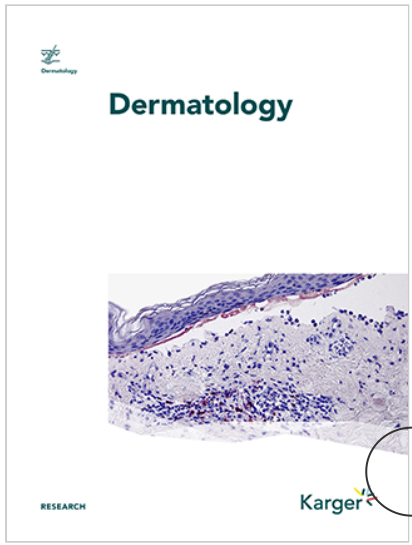

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Background: Extracorporeal photopheresis (ECP) is a second-line therapy for steroid-refractory

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UV Treatment of Chronic Skin Graft-versus-Host Disease – Focus on UVA1 and Extracorporeal Photopheresis

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Abstract

Chronic graft-versus-host disease (GVHD) is a serious and life-threatening complication after allogeneic hematopoietic stem cell transplantation. Cutaneous manifestations such as lichenoid or sclerotic-type skin changes have been frequently observed in these patients. UVA1 phototherapy appears as a very effective treatment option for treatment-refractory lichenoid and sclerodermatous GVHD. Substantial improvements can often be achieved within 8–12 weeks of treatment allowing for subsequent reduction or withdrawal of immunosuppressive medications. UVA1 treatment acts via a local effect and is therefore only indicated for cutaneous manifestations of GVHD. In patients with multiorgan involvement by chronic GVHD, extracorporeal photopheresis is an efficacious and safe second-line therapy for steroid-refractory disease in both pediatric as well as adult patients. Besides high response rates in cutaneous and extracutaneous manifestations of chronic GVHD, a substantial corticosteroid-sparing effect and improved survival rates have been reported in patients given extracorporeal photopheresis treatment.

Chronic graft-versus-host disease (GVHD) remains a severe and clinically challenging complication after allogeneic hematopoietic stem cell transplantation (HCT) with a significant negative impact on quality of life and patient survival. It is a multisystem disorder with a variety of clinical phenotypes resembling autoimmune disorders such as scleroderma, systemic lupus erythematosus, Sjögren syndrome and rheumatoid arthritis. The most frequent organ manifestations of chronic GVHD are skin in up to 90% of patients, oral mucosa in 60%, eyes in 60% and liver in 60%, respectively [1]. Lichenoid-type changes represent the early form of cutaneous manifestations of chronic GVHD, whereas late ones may lead to superficial and deep sclerosis of the skin resulting in severe impairment of patients' activities and quality of life.

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