

Amniotic membrane transplantation for severe ocular graft-versus-host disease following allogeneic hematopoietic stem cell transplantation

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Allogeneic stem cell transplantation (allo-SCT) offers cure to otherwise incurable hematologic malignancies, but can also lead to many infectious and immune complications, most importantly graft-versus-host disease (GVHD). Ocular GVHD (oGVHD) occurs in 40-60% of allo-SCT patients and can result in severe ocular surface disease causing vision impairment and deterioration of quality of life. Amniotic membrane transplantation (AMT) is an established technique in the treatment of various diseases of the ocular surface. This method could provide new options in the management of otherwise disabling severe oGVHD. We describe a young female patient with myeloproliferative neoplasm who underwent allo-SCT from an unrelated donor and suffered from numerous post-transplant complications. In the early post-transplant period she developed acute skin and liver GVHD, requiring introduction of immunosuppressive treatment with steroids. Steroid treatment was then complicated with miopathy, iatrogenic diabetes and many infections. She developed serious herpes virus (HSV) ophthalmitis followed by severe GVHD of the eye. Despite multiagent local therapy, oGVHD progressed to ocular ulcers with threatening corneal perforation. We hesitated from increasing systemic immunosuppression due to severity of previous HSV reactivation. Therefore we decided to perform AMT which led to complete corneal healing and full clinical recovery. Moreover, there was no recurrence of severe oGVHD and the patient resumed her daily activities. In conclusion, this case report serves as a foundation for further research of AMT possibilities. This procedure could become beneficial in the treatment of severe oGVHD, especially in patients at high risk for infectious complications and contraindication for systemic immunosuppression.