CASE REPORT – MANAGEMENT OF SYMBLEPHARON ASSOCIATED WITH DRY EYE SECONDARY TO GRAFT-VERSUS-HOST-DISEASE (GVHD)

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Abstract

Ocular Graft-Versus-Host Disease (GVHD) is a serious complication following bone marrow transplantation, often marked by chronic inflammation and severe tear dysfunction. Clinical treatment is often insufficient, requiring surgical intervention. We report a case of a 27-year-old male with ocular GVHD refractory to optimized clinical management. Clinical findings included ptosis, symblepharon, corneal neovascularization, and a Schirmer test of 0 mm. The patient underwent symblepharon excision and fornix reconstruction using oral mucosa graft, with further planning for salivary gland transplantation. After 40 days, partial improvement was observed, with intact graft and no superior epithelial defect. This case highlights the importance of a multidisciplinary, personalized approach in the management of severe ocular GVHD.

Introduction: -

Ocular Graft-versus-Host Disease (GVHD) is a severe and debilitating immunological complication that occurs after transplantation, significantly impacting recipients' quality of life. Ophthalmic manifestations include severe dry eye disease, chronic ocular surface inflammation, keratopathy, and marked visual acuity impairment. The clinical management of GVHD is challenging and requires a multidisciplinary approach. Thus, when cases treated with conventional medical therapy — including lubricating eye drops and topical immunosuppressants — are refractory, surgical intervention becomes necessary to restore ocular anatomy and function[124]. In this context, the present study aims to report a case of ocular GVHD refractory to medical treatment, managed through a combined surgical approach, discussing the clinical course and available therapeutic options.

Metodology: -

This is a case report based on ambulatorial care at a university hospital. Clinical data were obtained through

a review of the electronic medical record, with the patient's authorization and informed consent for the use of the information. Ophthalmologic examinations included slit-lamp biomicroscopy, Schirmer's test, and photographic documentation. The therapeutic approach involved surgical excision of symblepharon and reconstruction of the fornix with an oral mucosal graft, followed by clinical follow-up with therapeutic contact lenses. Salivary gland transplantation was as well planned.

Results and Discussion: -

A 27-year-old male patient, with a previous diagnosis of acute lymphoblastic leukemia, underwent bone marrow transplantation in 2013 and subsequently developed ocular and oral GVHD. He reported severe dry eye symptoms, hyperemia, and progressive bilateral visual acuity loss for the past six months. Despite optimized medical therapy (tacrolimus, autologous serum, and eye drops insulin), there was no significant improvement. Ophthalmologic examination revealed eyelid ptosis, hyperemia, superior symblepharon, and diffuse bilateral corneal neovascularization (fig. 01), with a Schirmer's test result of 0 mm.

Figure 01 – Preoperative ophthalmologic examination.

Source: Authors (2025)

Thus, a surgical approach was chosen for the right eye, consisting of symblepharon excision (fig. 02) and fornix reconstruction with an oral mucosal graft (fig. 03). After forty days of the surgical operation, partial improvement was observed, with the graft well attached and no superior epithelial defect (fig. 04).

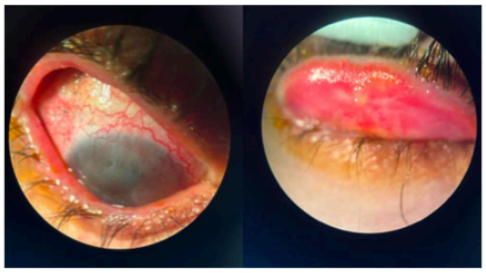
Figure 02 – Symblepharon excision.

Source: Authors (2025)

Figure 03 – Preoperative oral mucosa.

Source: Authors (2025)

Figure 04 – Postoperative ophthalmologic examination of the right eye.



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This case highlights the importance of considering early surgical intervention in refractory ocular GVHD cases, tailoring management to the extent of tissue damage and the response to medical therapy.

Conclusion: -

Ocular Graft-versus-Host Disease (GVHD) represents a condition of high therapeutic complexity, particularly in cases refractory to conventional medical management. This report demonstrates that surgical intervention, through symblepharon excision combined with fornix reconstruction using an oral mucosal graft, can contribute significantly to ocular surface stability and symptomatic relief, even if partial. Furthermore, preparing the ocular bed through these techniques enables subsequent interventions, such as salivary gland transplantation. Therefore, the relevance of individualized therapeutic strategies, implemented within a multidisciplinary context, is underscored to optimize visual and functional outcomes in patients with severe ocular GVHD[3].

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