

00238                      **Case of Persistent Corneal Epithelial Defect in a Lady With Prolonged Treatment for Ocular Graft-versus-host Disease**

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**Aims:** To describe a case of a lady with a history of graft-versus-host disease (GVHD) who developed persistent corneal epithelial defects (PED).

**Methodology:** Review of retrospective case notes and related literature published and indexed in the NCBI PubMed database over the last 5 years.

**Result:** A 48 year old Chinese lady, a known case of chronic graft versus host disease, presented with bilateral severe dry eye after she underwent an allogeneic bone marrow transplantation for acute myeloid leukemia. In the left eye, cytomegaloviral endotheliitis and corneal epithelial breakdown occurred, likely due to the long term use of topical steroids. It progressed into a large inferior corneal non-healing epithelial defect (PED) and swelling of the corneal stroma. In addition, infectious keratitis from *Pseudomonas aeruginosa* and *Corynebacterium* species developed, likely related to bandage contact lens wear. For visual rehabilitation, posterior endothelial graft and anterior lamellar graft with amniotic membrane, as well as tarsorrhaphy were performed. In addition, a buccal mucosal graft was performed with a view to perform boston keratoprosthesis. A similar course of events in the right eye occurred with CMV endotheliitis and PED. It was later infected with *Corynebacterium* spp. This cornea developed band keratopathy.

**Conclusion:** Causes of a PED include insufficient tear, limbal stem cell deficiency (LSCD), inflammation, neurotrophic keratopathy and corneal endothelial disease causing epithelial bullae. The therapeutic approach is to exclude infection and provide protection and reconstruction of the ocular surface. Examples include artificial tears, bandage lenses, scleral lenses, serum-derived eye drops, amniotic membrane transplantation, conjunctival flaps, or tarsorrhaphy surgery.