Amniotic Membrane Transplantation Prevents Blindness

Amniotic membrane transplantation prevents blindness in patients with a severe form of Stevens-Johnson Syndrome (SJS), a Loyola study has found.

The study by senior author Charles Bouchard, MD, and colleagues is published in the journal *Cornea*.

In SJS, skin and mucous membranes, including the eye surface, react severely to a medication or infection. A more severe form of SJS, involving more than 30 percent of the body surface, is toxic epidermal necrolysis (TEN). Between 50 percent and 81 percent of SJS/TEN patients experience eye problems, ranging from mild dry eye to severe scarring that can cause blindness.

Amniotic membrane has natural therapeutic properties. When placed on the eye, it can help aid healing, decrease inflammation and minimize scarring. (Tissue is donated by consenting mothers.)

Previous studies have found that amniotic membrane transplantation is effective in the chronic stage of SJS/TEN. The Loyola case-control study is one of the largest studies to examine the effect of amniotic membrane transplantation in the early, acute stage.

Researchers compared recent patients with mild, moderate and severe disease who received amniotic membrane transplantation with similar patients who did not receive this treatment because it was not yet available.

Thirteen of the recent patients underwent amniotic membrane transplantation on a total of 25 eyes during the early stage of the disease, and 17 patients (33 eyes) received standard medical management but no transplantation. After three months, only 4.3 percent of the eyes treated with amniotic membrane transplantation were legally blind. By comparison, 35 percent of the eyes treated with medical management alone were legally blind.

Dr. Bouchard, chairman of Ophthalmology, and Amy Lin, MD, performed the amniotic membrane transplants in the study. Co-authors, all in Loyola’s Department of Ophthalmology, are Maylon Hsu, MD, (first author), Anupam Jayaram, MD, and Ruth Verner, BS.