

First corneal transplant with pre-loaded donor tissue performed at Mass. Eye and Ear

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The first successful cornea transplant with donor endothelial tissue preloaded by an eye bank has been performed at Massachusetts Eye and Ear in Boston, Mass. Roberto Pineda II, M.D., Director of the Refractive Surgery Service at Mass. Eye and Ear, and an Associate Professor of Ophthalmology at Harvard Medical School, recently performed the groundbreaking transplant.

Dr. Pineda performed the surgery utilizing donor endothelial [tissue](#) that was prepared and pre-loaded into EndoGlide (Angiotech Pharmaceuticals, Inc.) cartridges at the Lions Eye Institute for Transplant & Research (LEITR) in Tampa, FL.

According to Dr. Pineda, using preloaded donor tissue may minimize potential damage to the endothelial cells and, thus, may lead to better outcomes for the patient.

"Reducing any variables that could interfere with a patient's ability to successfully regain sight after surgery is significant," said Dr. Pineda. "The ultimate goal is to improve the quality of life for our patients," Dr. Pineda said.

A world-leading cornea expert and refractive surgeon at Mass. Eye and Ear, Dr. Pineda has collaborated with LEITR and Angiotech/Sharpoint for the last seven months to help develop the innovative procedure.

"I am pleased that - with Dr. Pineda leading these efforts - Mass. Eye

and Ear is at the forefront of implementing an innovative technology that could greatly improve the quality of surgical outcomes for patients facing partial or complete vision loss," said Joan W. Miller, M.D., FARVO, Chief and Chair of [Ophthalmology](#) at Mass. Eye and Ear and Harvard Medical School.

Last year, LEITR reported that eye banks are able to safely prepare and load corneal tissue into the EndoGlide cartridges. In a pre-clinical study presented at the 2012 Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting, corneal buttons pre-loaded by LEITR sustained an average of 9.07% endothelial cell damage, compared to 36.2% endothelial cell damage in control group tissue that was loaded into the insertion system on site. The difference in endothelial damage between the preloaded and control buttons was statistically significant ($P = 0.004$).

Provided by Massachusetts Eye and Ear Infirmary

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