

THANK YOU

for your ongoing support to advance research and discover new treatments for children with eye diseases. We are pleased to share the following updates enabled by Brandan's Eye Research Fund:

PROJECT #1: IMPROVING LONG-TERM VISUAL AND ANATOMIC OUTCOMES FOLLOWING LATE SURGERY FOR PERSISTENT FETAL VASCULATURE

Some children are impacted by a congenital anomaly known as persistent fetal vasculature (PFV). This condition is caused by the partial or complete failure of the developing eye. Researchers from the Department of Ophthalmology and Vision Sciences at SickKids investigated the visual and anatomic outcomes in a group of patients who underwent late surgery for PFV to see how their results compared to previously published results for patients who underwent early surgery for PFV. Participants in this research included those who underwent an operation after seven months of age with at least a

year of follow-up. The primary outcome studied was the final visual acuity (VA), using age-appropriate tests. Secondary outcomes included the rate of adverse events and the number of subsequent intraocular procedures.

Overall, in this study cohort, late surgery for unilateral PFV achieved functional visual acuity in over a third of patients. This is comparable to the results achieved with early surgery but with less adverse events. This is a follow-up paper based on a review published [here](#) in the *Journal of American Association for Pediatric Ophthalmology and Strabismus* (JAAPOS), which is the official publication of the American Association for Pediatric Ophthalmology and Strabismus.

PROJECT #2: SURGICAL OUTCOMES OF COMBINED OR SEQUENTIAL PENETRATING KERATOPLASTY AND AHMED GLAUCOMA VALVE IMPLANTATION IN PAEDIATRIC PATIENTS

This retrospective case series, which has not yet been published, evaluated the outcomes of a corneal transplant technique known as penetrating keratoplasty (PKP) as well as a glaucoma treatment called Ahmed glaucoma valve (AGV) in paediatric patients. Methods included reviewing clinical records of all children under 18 who underwent simultaneous or sequential PKP and AGV implantation from 2003 to 2017.

Overall, our researchers found that PKP and AGV implantation can effectively reduce intraocular pressure and restore corneal clarity in paediatric patients with complex anterior segment eye disorders.

On behalf of everyone at the Department of Ophthalmology and Vision Sciences at SickKids, please accept our gratitude for the continued support of everyone associated with Brandan's Eye Research Fund.



Brandan's Eye Research Fund is critical for helping children with vision loss and eye conditions.