

A CLEAR WAY FORWARD

THANKS TO BRANDAN'S EYE RESEARCH FUND, SICKKIDS IS CONTINUING TO FIND NEW TREATMENTS AND CURES FOR THE DISEASES AND DISORDERS THAT CAUSE VISION LOSS.

Brandan's Eye Research Fund has a vision for a better future for children with eye diseases. And thanks to you, we are closer than ever to accomplishing that goal. We are pleased to share three recent projects you made possible.

PROJECT #1

**CATARACTS IN PAEDIATRIC UVEITIS:
EXAMINING TREATMENTS OF AN AUTO-IMMUNE INFLAMMATION DISEASE**

Over the past 15 years, there has been significant progress in the treatment of uveitis, an auto-immune inflammation of the eye, thanks to the development of immunomodulatory medications and targeted therapies (called biotherapies). Because of these new treatments, the long-term complications of chronic eye inflammation, and the complications of medications (steroids), such as cataracts and glaucoma, can be avoided in most patients. In children, however, the inflammation does not cause any pain or redness of the eye and can go unnoticed for a long time. In rare cases, children will present at their first eye examination with complications of chronic inflammation, such as cataracts or glaucoma. When it is significant enough to prevent good vision, the treatment of a cataract is surgical, removing the natural, opacified, lens of the eye, with or without implantation of an artificial intraocular lens. But cataract surgery in children, especially in the case of uveitis, causes a high degree of inflammation. This is why patients must have their uveitis under control before considering surgery, but there is no consensus regarding the best treatment before and after surgery or whether biotherapies should be considered for affected children. This study will review the charts of children with uveitis who presented with a cataract over the past 15 years to determine whether biotherapies improved the inflammation in the year following the surgery, whether an intraocular lens could be safely implanted at the time of cataract surgery, and what were the chances to recover a good vision after surgery.

PROJECT #2

**PAEDIATRIC CATARACT SURGERY AFTER CANCER:
FOLLOWING TREATMENT FOR CATARACTS POST-RETINOBLASTOMA**

Retinoblastoma is the most common form of cancer affecting the eye in children. Treatments for retinoblastoma, such as radiation to the eye or chemotherapy injected into the eye, may lead to the formation of secondary cataracts, a clouding of the eye's natural lens. Cataracts may limit the child's visual development and prevent adequate visualization of the retinal tumor during exams. There are no uniform guidelines for the surgical management of cataracts in children with retinoblastoma. SickKids is



currently undertaking a study to investigate the outcomes of children who had cataract surgery between 2000 and 2020, following their treatments for retinoblastoma. We hope to better understand the outcomes of these children, related to vision, refractive error (nearsightedness or farsightedness), and potential complications. We will also conduct a review, using systematic methods, of all previous studies that have published results on surgery for cataracts in children with retinoblastoma. By combining the results of these studies, our aim is to identify the unique challenges of performing cataract surgery in these children and make recommendations for surgical management.

PROJECT #3

**BILATERAL CATARACT SURGERY:
OUTCOMES AND COMPLICATIONS OF IMMEDIATE VERSUS DELAYED
SEQUENTIAL BILATERAL CATARACT SURGERY IN CHILDREN**

The aim of this study was to present the largest series to date to compare immediate sequential bilateral cataract surgery (ISBCS) to delayed sequential bilateral cataract surgery (DSBCS) in children less than two years old with bilateral cataracts. The study found that patients who had one surgery (ISBCS) had less post-surgery complications, avoided multiple anesthesia sessions and had reduced follow-up visits compared to patients that had two scheduled surgeries (ISBCS).

Brandan's Eye Research Fund remains critical in the fight for a better future for children with eye conditions and vision loss. Thank you for your generosity.

THANK YOU

Every day, SickKids works towards improving the lives of children, and our success depends on the generosity of donors like Brandon's Eye Research Foundation. Your commitment to vision health at SickKids ensures that we can continue to offer the best possible health outcomes for children. Thank you for your remarkable generosity.



**FOR MORE INFORMATION,
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