

Complications Related to Prolonged Use of Topical Steroids Among Children with Uveitis: A retrospective study.

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Background: Uveitis can be described as inflammation of the eye. It is classified depending on the location of the inflammation in anterior, intermediate, posterior and panuveitis. The current guidelines for first-line treatment include glucocorticoids, topical with eyedrops, intraocular corticosteroid injections and systemic (oral). Potential complications of patients on prolonged topical steroids include, glaucoma, and cataracts, which can subsequently cause permanent visual loss. The aim of this study is to describe the complications related to the use of prolonged topical steroids among pediatric uveitis patients.

Methods: This retrospective observational study reviewed the medical records of children (age \leq 18 years) with uveitis at Riley Hospital for Children between 1997-2022 data collected included age at onset of uveitis, sex, anatomic location of ocular inflammation, comorbid disease (including systemic inflammatory disease), ocular complications, relevant laboratory data, and treatment. Study data was collected and managed using REDCap. Statistical analysis was performed using SPSS software.

Results: Out of 122 subjects, anterior uveitis constituted 45.1% of patients, intermediate 15.6% and posterior uveitis 0.8%. The median age of diagnosis was 10 years of age and 53.3% were female. Among these 54.1% of patients were placed on steroids, of which 49.2% were on topical steroids drops and 5.7% on oral steroids. Within the group of patients on chronic steroids 18% developed cataracts and 8.2% subsequently required corrective surgery, 10.7% developed glaucoma and 13.9% required intraocular pressure reducing drops.

Conclusion and Potential Impact: Uveitis treatment can be challenging, and some patients require longer periods of topical steroid use, which can be associated with complications including glaucoma and cataracts which can lead to blindness. In this cohort 18% developed cataracts and 10.7 % developed glaucoma. These effects can be mitigated with attentive monitoring. Balancing the benefits and risks of steroids and judicious use are vital to optimizing ocular health.