Epidemiology of Pediatric Uveitis in Indiana

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Background: Pediatric uveitis is a rare, often idiopathic and poorly characterized autoimmune disorder with severe morbidity and uncertain outcomes. The aim of this study is to better characterize the epidemiology, treatments, and comorbidities of this condition.

Methods: A retrospective chart review was completed of children diagnosed with pediatric uveitis at Riley Hospital for Children from 1997-2022. Patients were identified via ICD-10 codes and data was extracted from electronic medical records. Deidentified data was stored in IU secure RedCap. Patient characteristics were outlined in frequencies and descriptive statistics. Data was analyzed using SPSS. Indiana University IRB approval was obtained. 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.

Results: A total of 120 patients were included in this study. 53.3% were female. The median age of diagnosis was 10 years of age. Out of the 122 individuals diagnosed with Uveitis or JIA, the majority were White (68.9%), followed by Black/African American (10.7%), Hispanic/Latino (6.6%), other (2.4%), and Asian (.8%). Anterior uveitis (45.1%) was the most frequent subtype, followed by Intermediate (15.6%), and posterior uveitis (0.8%). 27.9% of individuals had uveitis associated with juvenile idiopathic arthritis. 22.1% of individuals were ANA positive, and 5.7% were HLAB27 positive. Regarding eye complications in patients with Uveitis, 18% reported Cataracts and 10.7% reported glaucoma. 44.3% of patients were treated with immunosuppressive medications such as methotrexate, 25.4% with Humira, and 54.1% with steroids.

Conclusion and Potential Impact: This retrospective chart review of 122 individuals with pediatric uveitis contributes to the epidemiologic description of this patient population in this single center setting over a 25-year period of time. These findings help better characterize the population with regard to concomitant conditions, treatment patterns, and comorbidities for broader generalization in future work.