The Challenge of Pediatric Uveitis

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Introduction

The purpose of this study is an update about the distribution, clinical findings, visual outcomes, treatment and complications of children affected by uveitis at a tertiary referral ophthalmic center in Waltham, USA.

Patients & Methods

A retrospective cohort study including patients 16 years or younger with uveitis referred to Massachusetts Eye Research and Surgery Institution (MERSI) from March 2005 to July 2016.

Results

286 patients were included. Anterior uveitis was the most frequent type (61.9%), followed by intermediate uveitis panuveitis and posterior uveitis.
Mean age of onset of uveitis was 8.4 ± 3.83 years and at the first visit at MERSI 9.58 ± 3.75 years. A female predominance was found among overall cohort (62.24%), specially in the case of anterior uveitis (71.19%), but not in the intermediate ones with male predilection (59.32%).
Common symptoms were redness (25.17%), blurriness (22.38) and decrease in vision (16.78%).
The inflammation was most commonly recurrent (68.53%), bilateral (81.82%) and non-infectious (96.5%). 51.4% of the cases were idiopathic, whereas a systemic association was found in 39.86% of patients and juvenile idiopathic arthritis was the most common one (34.96%). Complications experienced in 222 patients, most often cataract with 43.84% of the affected eyes followed by glaucoma. 109 patients underwent surgery. Methotrexate was the most commonly used systemic therapy (69.93%).
The rate of severe vision loss (visual acuity ≤ 20/200) was 8.65% at baseline and 7.69% at the final follow up, with a greater risk for patient affected by JIA-associated uveitis (OR=1.82 and OR=1.64, respectively).

Etiology	No. of cases (%)
Idiopathic intermediate uveitis	57 (19.93)
Idiopathic anterior uveitis	54 (18.88)
Idiopathic panuveitis	33 (11.54)
HLA-B27-associated anterior uveitis	10 (3.49)
Lyme-associated uveitis	4 (1.4)
Idiopathic posterior uveitis	3 (1.05)
Psoriasis-associated anterior uveitis	3 (1.05)
Sarcoid uveitis	3 (1.05)
Toxoplasmosis	3 (1.05)
Tubulointerstitial nephritis-associated uveitis	3 (1.05)
Enteropathic uveitis	2 (0.7)
Multifocal choroiditis and panuveitis	2 (0.7)
Toxocara	2 (0.7)
Adamantiades Behcet Disease	1 (0.35)
Fuchs heterochromic uveitis	1 (0.35)
HSV anterior uveitis	1 (0.35)
Systemic lupus erythematosus	1 (0.35)
Sympathetic ophthalmia	1 (0.35)
Traumatic uveitis	1 (0.35)
Vogt-Koyanagi-Harada	1 (0.35)

Table 1 Etiology of uveitis

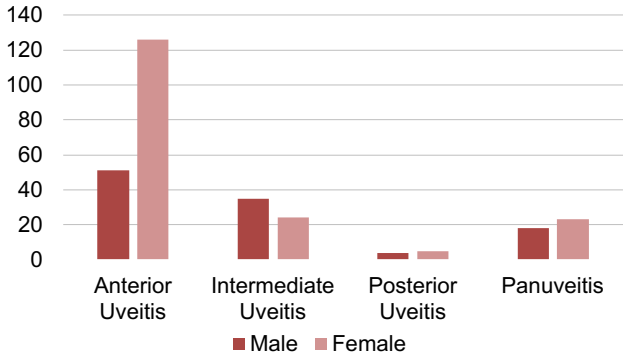

Figure 1 Distribution gender

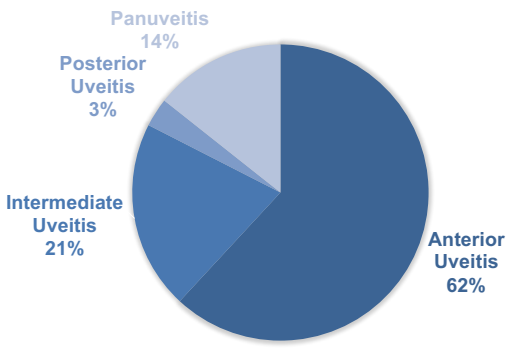

Figure 2 Type of uveitis

Conclusions

Pediatric uveitis is a challenging issue for ophthalmologists in terms of diagnosis, treatment and management. Most children with uveitis have a bilateral chronic or recurrent course with insidious onset and an idiopathic aetiology. Delay in diagnosis increases the number of complications. Good visual outcomes can be achieved more easily if patients receive appropriate steroid-sparing therapy in a specialized center.