Systemic Treatment of Uveitis in Children

A Single Center Experience

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Background: Uveitis is a condition frequently seen in children with Juvenile idiopathic arthritis. A proportion of children with uveitis do not respond to local treatment with corticosteroid eye drops. Because of the risk of vision loss associated with uveitis and the complications of prolonged local steroid treatment, patients with severe uveitis are referred to the pediatric rheumatologist for systemic therapy. Traditional systemic treatments may not be effective, are slow in onset of action (traditional DMARDs) or are associated with unacceptable toxicity profile (corticosteroids). TNF alfa antagonists have been found of benefit in uveitis. Adalimumab has been recently licensed in our country for this indication. Herein we report our experience in treating uveitis in the setting of a referral pediatric rheumatology center.

Methods: The files of children with uveitis referred from ophthalmology centers across Kuwait were reviewed. All patients had systemic therapy with traditional DMARDs, corticosteroids or biologic DMARDs (anti-TNF). All patients had bi-weekly to 4 weekly visits to the ophthalmologist during therapy. Degree of improvement or worsening was reported in percentage of change in SUN (Standardization of the Uveitis Nomenclature) classification criteria. All children had a complete blood count with liver and renal function tests every 6-8 weeks. All patients treated with a biologic agent had T-spot test prior to starting treatment to rule out latent tuberculosis.

Results: 20 patients with uveitis were included in this review. The underlying disease in 11 patients was JIA, one patient had Vogt-Koyonagi-Harada syndrome and 8 patients had idiopathic uveitis. Four patients were excluded due to missing data. The mean age of patients at diagnosis was 11 years. Six patients were treated with a traditional DMARD alone (systemic corticosteroids, methotrexate, cyclosporine and or mycophenylate), 3 patients with adalimumab monotherapy and 7 patients were treated with adalimumab and a DMARD. One patient with JIA on etanercept was switched to adalimumab once uveitis had developed. Overall, 75% improvement after 3 months and 93.3% after 9 months was reported. Signs of active uveitis were more likely to improve at 3 months and 9 months in patients treated with adalimumab (monotherapy or combined with a DMARD) than patients on DMARDs (78% and 100% improvement vs 66% and 81%). No serious adverse events or tuberculosis developed during the study period.

Conclusion: Systemic treatment of uveitis refractory or dependent on high dose local corticosteroids treatment is warranted and appears to be effective. Adalimumab appears to be more effective than conventional DMARDs and safe in treating uveitis in children. Our experience is consistent with the results of the Sycamore trial. The cooperation between pediatric ophthalmologists and rheumatologists and early referral is paramount.

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