Post-Streptococcal Uveitis Syndrome

Belfast Health and Social Care Trust

Belfast Paediatric Uveitis Regional Service

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Background:

- Beta-haemolytic streptococci are a common cause of acute infections such as an upper respiratory infection or impetigo.
- Uveitis is an uncommon manifestation of post-streptococcal syndrome.
- It was first reported in 1991, but despite further reports in the published literature, the condition is often not well recognised.[1]

Patients & Methods:

- We identified all cases of post-streptococcal uveitis from all new patients attending the Belfast specialist paediatric uveitis service from 2011.
- Diagnostic criteria were unilateral or bilateral uveitis with positive antistreptolysin O titres ASOT and/or anti-Deoxyribonuclease (anti-DNase) titres, and negative routine investigations for other causes of uveitis.[2]

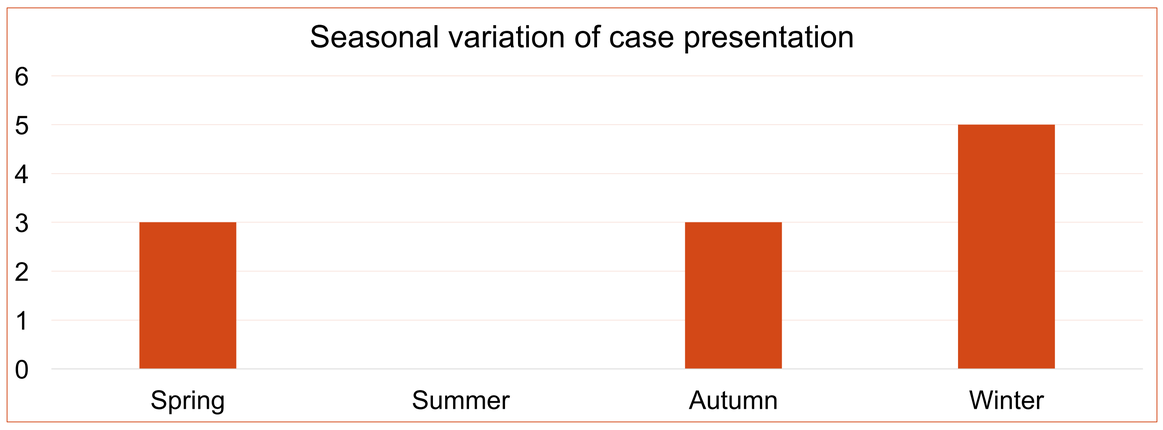

Figure 1: Seasonal variation of case presentation

Results:

No. Patients	11
Gender	
Male	18%
Female	82%
Ethnicity	
Caucasian	100%
Mean age at diagnosis	11 years 8 months
0 – 2	0%
2 – 10	36%
10 – 16	64%
Location	
Anterior	55%
Intermediate	45%
Posterior	0%
Panuveitis	0%
Laterality	
Bilateral	45%
Unilateral	55%
Course	
Acute	18%
Chronic	73%
Recurrent	9%

Table 1: Patient demographics

- ASOT and AntiDNase were **both** raised in 46% of cases.
- ASOT was raised alone in 36% of cases (27% AntiDNase not done).
- AntiDNase raised alone in 18% of cases.
- Complications were present in 64% of cases at initial presentation and occurred in 73% of patients at any time point.

- Patient demographics are shown in Table 1.
- 73% of cases presented in spring or winter months when levels of streptococcal infection are likely to be highest (Figure 1).
- One particularly interesting case was that of a 9-year-old girl who presented with an intermediate uveitis who developed unusual corneal findings shown in Figure 2. The photograph shows a focal area of peripheral corneal endotheliopathy previously described in children with pars planitis but not post-streptococcal uveitis.[3]

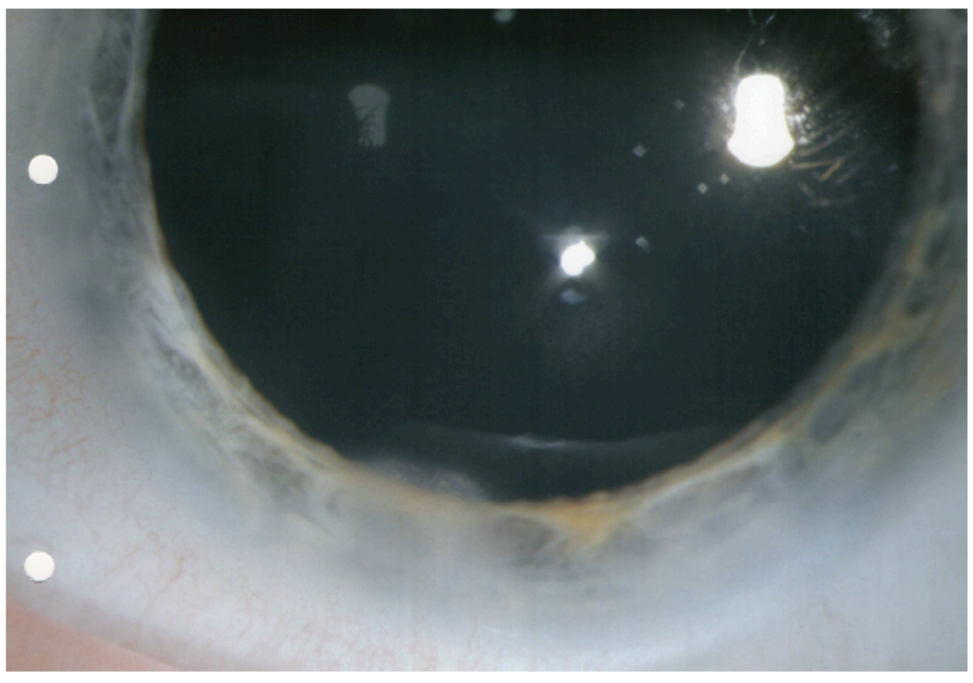

Figure 2: Corneal photograph of case demonstrating peripheral corneal endotheliopathy.

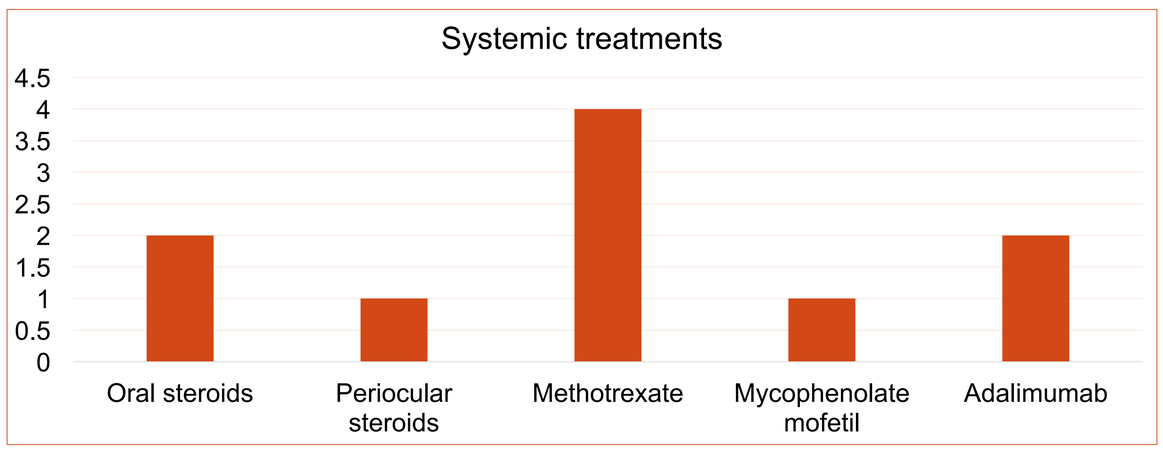

Figure 3: Systemic treatment

- Systemic treatment was used in 36% of cases (Figure 3).
- Visual outcomes are good with 88% of eyes achieving a visual acuity ≥ 6/12 (Range 6/4 to 6/19) at mean follow-up of 22 months (Table 2).
- Tinley et al report a similar study of 22 patients with a final mean visual acuity of 6/6 (Range 6/6 to 6/36). [2]

	Baseline	1 Year	3 Years	Final
No. Uveitic Eyes	16	14	1	16
VA ≥ 6/12	87.5%	86%	0%	88%
VA 6/15 – 6/60	12.5%	14%	100%	12%
VA > 6/60	0%	0%	0%	0%
VA ≤ 6/60	100%	100%	100%	100%

Table 2: Visual outcomes

Conclusions:

- We report a consecutive series of patients under 16 years of age with post-streptococcal uveitis.
- With aggressive treatment and careful monitoring, we achieve visual outcomes better than published in the literature for this condition.

References:

1. *Cokingtin C, Han DP. Bilateral nongranulomatous uveitis and a poststreptococcal syndrome. Am J Ophthalmol 1991; 112: 595–596.*

2. Tinley C, Van Zyl L, Grotte R. Poststreptococcal syndrome uveitis in South African children. Br J Ophthalmol 2012 Jan;96(1):87-9.

3. Tugal-Tutkun, Pediatric Uveitis. J Ophthalmic Vis Res. 2011 Oct; 6(4): 259–269