Phenotypes of tuberculous uveitis in QuantiFERON-gold positive patients and outcomes of anti-tuberculous treatment: retrospective observational study

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Background

- 50% of all TB notifications in the UK are from individuals born outside the UK.
- Leicester residents come from 50 countries across the world, making it one of the most ethnically diverse cities in the UK.
- The most commonly reported country of birth of non-UK born Leicester residents is India (11%)

Objectives

- To describe the phenotypic characteristics and features of tuberculous uveitis (TBU) among Quantiferon Gold (Q-Gold) positive patients in Leicestershire
- To evaluate the outcomes of anti-tuberculous treatment (ATT) in this cohort, in comparison to the Collaborative Ocular Tuberculosis Study (COTS).

Methods

- Retrospective observational cohort study
- Patient sample: Quantiferon-Gold (Q-Gold) positive patients diagnosed and treated as tuberculous uveitis (TBU) at University Hospitals of Leicester NHS Trust from 1 January 2011-31 December 2020.

Treatment failure

Defined as any one of the following:

a) Persistence or recurrence of inflammation within 6 months of completing ATT

b) Inability to taper oral corticosteroids to <10mg/day or topical steroid drops to <2 drops daily

c) Recalcitrant Inflammation necessitating steroid-sparing immunosuppression.

Results

94 patients → 152 eyes

62.8% (59 patients) Bilateral

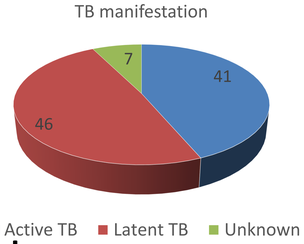
Demographic characteristics		Number (%)
Gender	Male	49 (52.1%)
	Female	45 (47.9%)
Age	Mean (SD)	53.4 (16.2)
Ethnicity	Asian	72 (76.6%)
	Afrocarribean/Black	6 (6.4%)
	White	13 (13.8%)
	Mixed	2 (2.1%)
	Unknown	1 (1.1%)
Country of origin	United Kingdom	14 (14.9%)
	Overseas	63 (67.0%)
	Not known	17 (18.1%)

Conclusion

- Anterior uveitis is the commonest presentation
- Treatment failure rate higher than that of COTS-1 trial (12.7%)
- Findings limited by retrospective methods
- Recommendations: need to evaluate phenotypes which may lead to a higher risk of treatment failure

77.0% Anterior uveitis
54.6% Intermediate uveitis/posterior uveitis
4.6% Choroidal Granuloma
19.7% Vasculitis
21.1% Macular Oedema 21.1% (32/152)

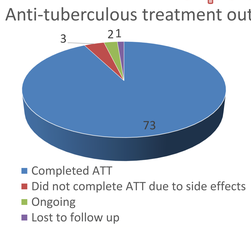
17 patients (18.1%) Systemic TB



Treatment received

83.0% Topical steroids
18.1% Periocular steroids
8.5% Intravitreal steroids
40.4% Systemic oral steroids
5.3% Steroid sparing immunosuppressant

79 patients (84%) received ATT



19 patients (26%) Treatment failure

16 patients (22%) Recurrence of TBU

References

- Tuberculosis in England 2021 report, UK Health Security Agency (accessed 2 Jan 2022)
- Agrawal R, Gunasekeran DV, Grant R, Agarwal A, Kon OM, Nguyen QD, Pavesio C, Gupta V. Clinical features and outcomes of patients with tubercular uveitis treated with antitubercular therapy in the collaborative ocular tuberculosis study (COTS)–1. JAMA ophthalmology. 2017 Dec 1;135(12):1318-27.