Pathways to detection of non-infectious childhood uveitis in the UK: Findings from the UNICORN cohort study

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Abstract

**Purpose**: Prompt detection of childhood uveitis is key to minimising negative impact. From an internationally unique inception cohort, we report pathways to disease detection.

**Methods**: UNICORN is a national childhood non-infectious uveitis inception cohort study with longitudinal prospective collection of a standardised clinical dataset and patient reported outcomes. Descriptive analysis have been undertaken to report baseline characteristics.

**Results**: Interim analyses are reported here based on the current complete dataset from 134 children (of 201 recruited to date across 27 hospitals): 52% are female, 28% of non-white ethnicity. Age at detection ranged from 2–17yrs (median 10). 71% have anterior, 12% intermediate, 10% anterior and intermediate, 6% pan and 1% posterior. 62% had no known systemic disease at uveitis detection. Commonest underlying diagnoses at uveitis detection were JIA (12%), TINU (8%, higher than pre-pandemic reported UK disease incidence) and sarcoid (1%).

In 70% uveitis was diagnosed following onset of symptoms: time from first symptoms to uveitis detection ranged from 0.737days (median 13 days), with a median 7 days to detection in those first presenting to emergency departments, 9 days for those
presenting to optometrists, versus 42 days for the 28% of symptomatic children presenting elsewhere. Non symptomatic children were detected through JIA or other systemic disease surveillance (25%), routine optometry review (4%) or child visual health screening (2%).

At disease detection, in at least one eye:
34% had structural complications (presence of which were associated with greater median time to detection – 17 days versus 4 days for uncomplicated presentation)
Posterior synechiae 28%
Band keratopathy 9%
Cataract 3%
18% had reduced vision

**Conclusions**: Whilst routine surveillance of children at known risk remains important, there is scope for improvement of pathways to detection. The earlier use of immunosuppression in JIA may result in a smaller ‘at risk’ population, and larger relative proportions of children with non-JIA uveitis, increasing the importance of improving awareness of childhood uveitis amongst the wider clinical communities. Forthcoming analysis on the full cohort will provide nationally representative data on management and the determinants of visual and broader developmental/well-being outcomes.

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