

Evaluating Treatment Outcomes and Risk Factors for Recurrence in Patients with HLA-B27+ Anterior Uveitis

Sean Bunachita BS, Elena Wei BA, Bryn Burkholder MD, Jennifer Thorne MD/PhD
Medical Student Research Symposium
Johns Hopkins University School of Medicine, Baltimore, Maryland, USA

BACKGROUND

- Uveitis is a common inflammation of the eye that accounts for around 10% of severe vision impairment and blindness
- Anterior uveitis is associated with a number of spondyloarthropathies such as ankylosing spondylitis, reactive arthritis, and psoriatic arthritis, among others
- 50% of anterior uveitis cases are HLA-B27 positive, but rates of and risk factors for recurrence require further study

STUDY OBJECTIVE

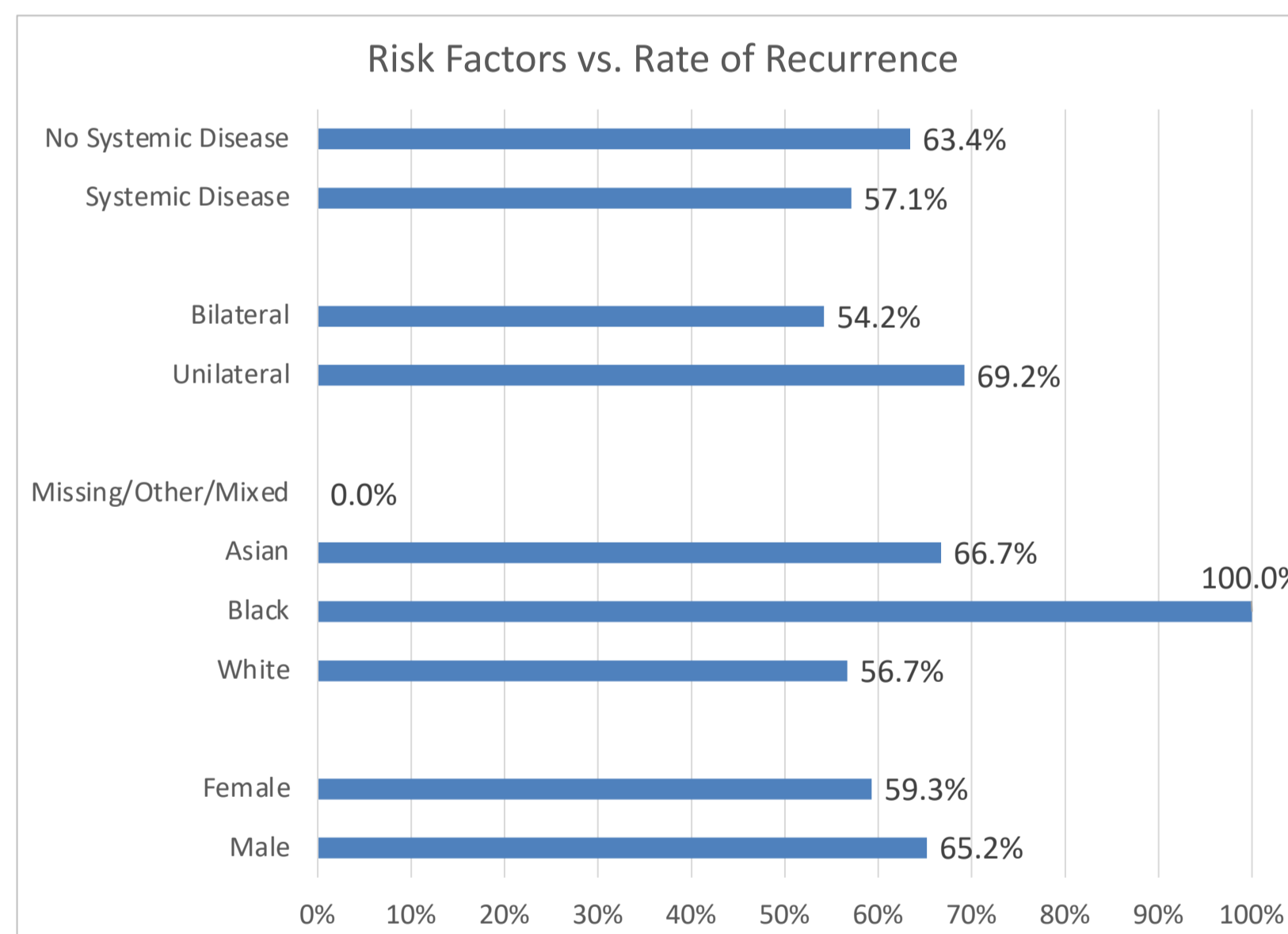
- The purpose of our study is to retrospectively examine recurrence rates, risk factors for recurrence, and potential seasonal aspects of Wilmer Eye Institute patients with HLA-B27+ anterior uveitis

METHODS

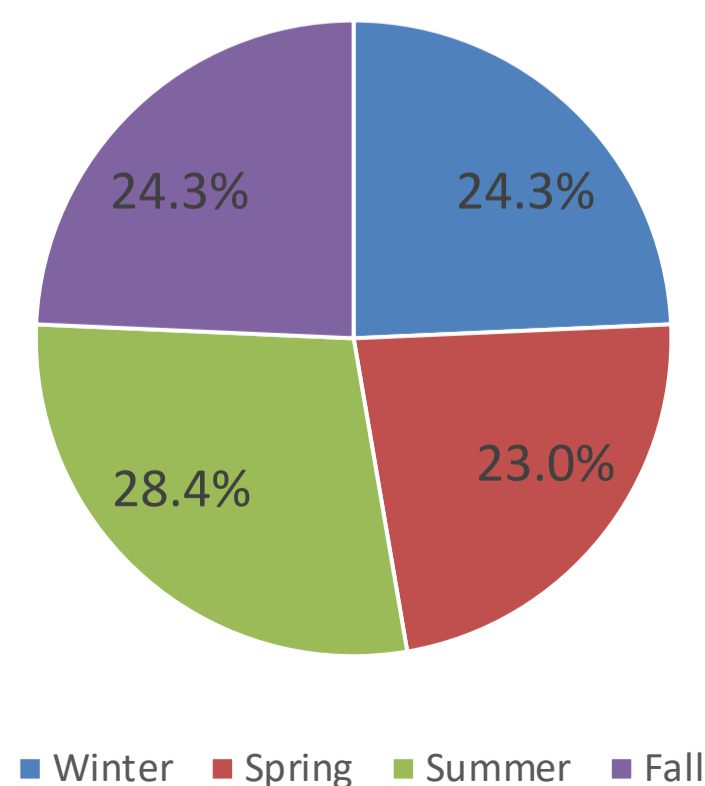
- Study Design: Retrospective study of 50 patients presenting at Johns Hopkins Wilmer Eye Institute with HLA-B27+ anterior uveitis
- Time Period: July 1994 to Oct 2022
- Data Collection: Excel spreadsheet of Wilmer clinic visits on EPIC of 45 different variables (35 variables per clinic visit)
- Outcome Variables: Number of recurrences, risk factors associated with recurrences, seasons in which recurrences occurred
- Statistical Analysis: Descriptive analysis, pending time to event and Cox regression analyses

RESULTS

Sample Characteristics	
Sex	23 Male 27 Female
Race	30 White 10 Black 6 Asian 3 Missing/Other 1 Mixed
Median Age	40.5 years
Recurrence rate	62.0%
Mean recurrences	2.39 per patient



Recurrences by Season



CONCLUSIONS

- Among patients with HLA-B27+ anterior uveitis, recurrence appears to be relatively common
- Seasonality does not seem to have an effect on recurrence
- Risk factors potentially associated with higher recurrence include Black and Asian race, unilateral disease, male sex, and not having concurrent systemic disease

LIMITATIONS

- Limitations of this study include a limited sample size, limited generalizability, and the retrospective nature of the study

IMPLICATIONS

- Further studies are needed to determine whether the associations we found hold with a larger, more generalizable sample

REFERENCES

1. Wakefield D, Clarke D, McCluskey P. Recent Developments in HLA B27 Anterior Uveitis. *Front Immunol.* 2021;11:608134. Published 2021 Jan 5. doi:10.3389/fimmu.2020.608134
2. Kabat AG, Sowka JW. The uveitis and HLA-B27 connection. *Review of Optometry.* <https://www.reviewofoptometry.com/article/the-uveitis-and-hlab27-connection>. Published January 15, 2016. Accessed March 27, 2022.
3. Scott A, DelMonte DW, Palestine A, Shantha J. HLA-B27 associated acute anterior uveitis. *EyeWiki.* https://eyewiki.aao.org/HLA-B27_Associated_Acute_Anterior_Uveitis. Published September 18, 2021. Accessed March 27, 2022.