

Adherence to NICE and EGS Guidelines in the Management of Uveitic Ocular Hypertension: A Retrospective Review

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Introduction

One of the major complications in individuals with uveitis is ocular hypertension. Although the pathogenesis is not fully understood, intraocular inflammation can lead to ocular hypertension. If left untreated, increased intraocular pressure can lead to optic nerve damage, a condition known as glaucoma. Uveitic patients with ocular hypertension often fall outside routine glaucoma pathways, creating potential gaps in guideline adherence. The potential for glaucoma-specific examination and investigations to be overlooked could lead to irreversible vision loss if the diagnosis is missed.

Therefore, a retrospective study was conducted to determine if our practice at St Paul's Eye unit has complied with the NICE and European Glaucoma Society guidelines in both the diagnosis, management of and monitoring necessary in uveitis patients with ocular hypertension.

Methodology

Study: Retrospective review

Location: St Paul's Eye unit, Royal Liverpool Hospital

Population: Patients diagnosed with both uveitis and ocular hypertension between May 2023 and May 2025

Data source: MediSight software

Sample size: 28 (1861 screened)

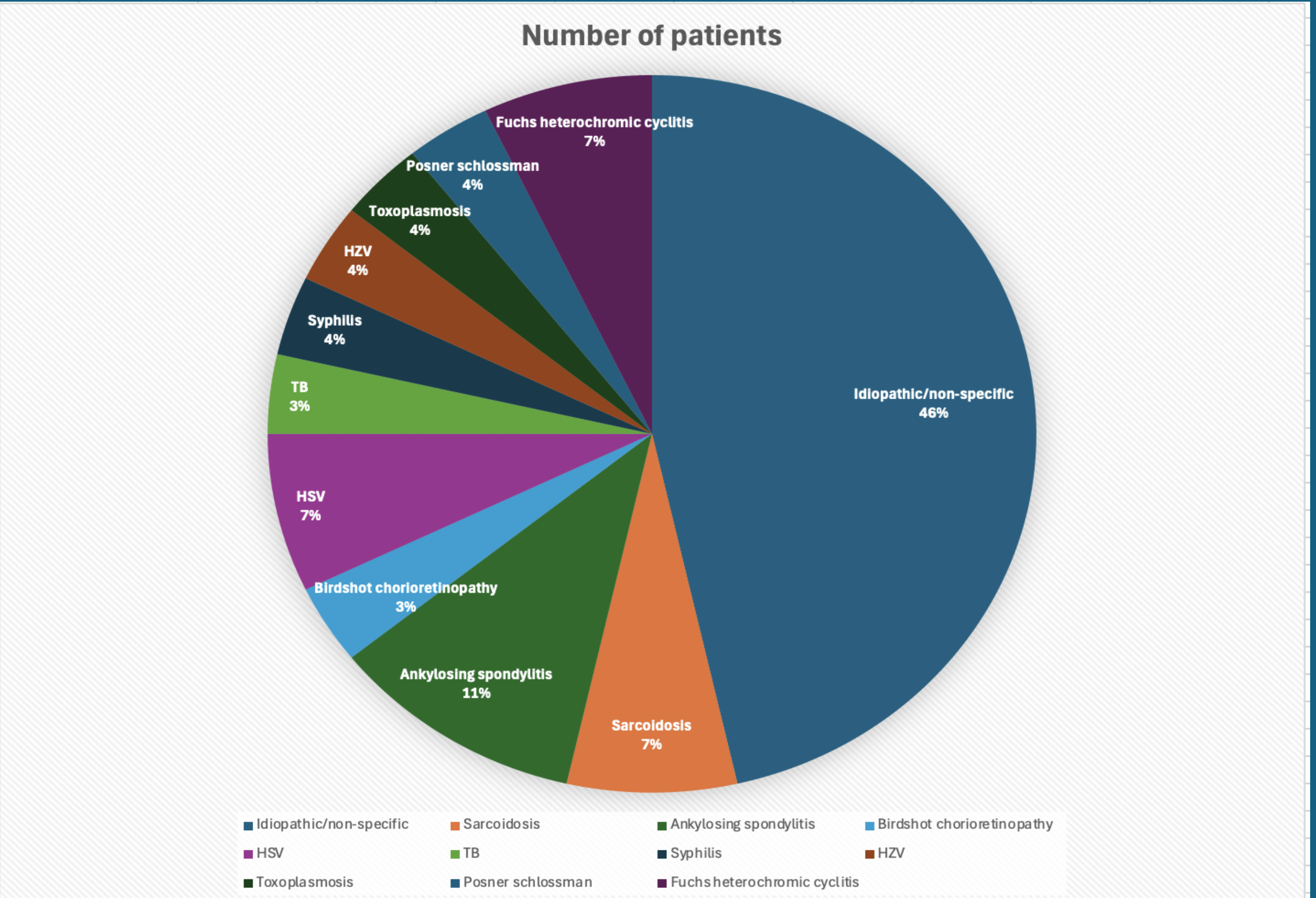
Data collected:

- Method and value of intraocular pressure
- Recommended investigations (Optical coherence tomography, Humphrey's visual field testing and gonioscopy)
- Treatment modalities
- Follow-up intervals

Results

The intraocular pressure measured in this cohort ranged from 22 to 50 mmHg. IOP measurement was performed using both Goldmann applanation and iCare tonometry was performed in only 10.7% of patients. According to NICE guidelines, Humphrey's visual field, OCT, and gonioscopy tests should be performed; however, in this cohort, 42.9% did not have a visual field test, 28.5% never had a gonioscopy exam, and 32% did not have an OCT scan. Out of the ones that had OCT, abnormalities found include macular oedema, optic disc cupping and retinal nerve fibre layer thinning. Visual field defects, typically superior or inferior arcuate loss or quadrant defects, were identified in 8 of the 16 patients tested. Of the 6 patients who were not referred to the glaucoma clinic, 2 had not undergone OCT, Humphrey's visual field testing or gonioscopy. Ocular hypertension was defined as an IOP of 21 mm Hg or higher. Following diagnosis with ocular hypertension, all the patients received topical IOP-lowering therapy.

Limitations: Due to the retrospective nature of this study and the lack of follow-up data, the impact of missing key tests on outcomes like glaucoma progression could not be assessed. However, existing guidelines and literature emphasise the importance of timely monitoring to prevent vision loss. Additionally, a small sample size would limit generalisability.



Conclusion

Monitoring high-risk uveitic patients who have developed ocular hypertension is crucial to reduce the risk of progression to glaucoma. This highlights an urgent need for a dedicated pathway to prevent blindness. In conclusion, all patients received treatment according to the NICE and EGS guidelines. However, compliance with recommended monitoring was suboptimal, particularly regarding monitoring patients by performing visual field testing and OCTs to reduce the progression rate to glaucoma.

Recommendations

- Setting up an alert system- when a patient is diagnosed with ocular hypertension, an alert will appear to state which investigations are still pending as per the NICE guidance. Only when the investigations are completed, the alert will disappear.
- Setting up diagnostic clinics where individuals diagnosed with increased IOP undergo all the required follow-up investigations. The results of these investigations are then checked by an ophthalmologist, and if any worrying features are identified, a follow-up appointment is scheduled.
- Primary care providers might also be able to screen for glaucoma and increased IOP. However, this will require extensive training.
- Avoid complex medication regimens, which might discourage patients from adhering to the topical eye drops prescribed.
- Use Artificial Intelligence to improve the accuracy of diagnosis, screen patients for glaucoma, and interpret optical coherence tomography.
- To ensure that patients are not lost during follow-up, one must ensure that patients are clear on their diagnosis and are aware of the severity of their diagnosis. Furthermore, it must be made clear to patients how often follow-up is required.

References

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