“PACS Plus” criteria: a retrospective audit of YAG Laser Peripheral Iridotomy pre- and post-RCOphth 2022 guideline implementation

Shakir S[1], Sood V[1]

[1] Queen Elizabeth Hospital, University Hospitals Birmingham NHS Foundation Trust, UK

University Hospitals Birmingham NHS Foundation Trust

Background

- Publication of the Royal College Guideline: Management of Angle-Closure Glaucoma in 2022, gave clear guidance on the management of patients at risk of sight loss from glaucoma or pathology related to acute angle-closure in people with occluded drainage angles. Patients with presumed occluded angles should only be referred for treatment on the basis of elevated IOP, glaucoma, or the risk factors constituting “PACS PLUS”.[1]

Standards

- The Royal College of Ophthalmologists Guideline of Management of Angle Closure Glaucoma in June 2022 was used as the standard where laser peripheral iridotomy (LPI) is advised for people with PACS PLUS additional risk factor(s) and laser PI is not advised for most people with PACS with no additional risk factors.[1]

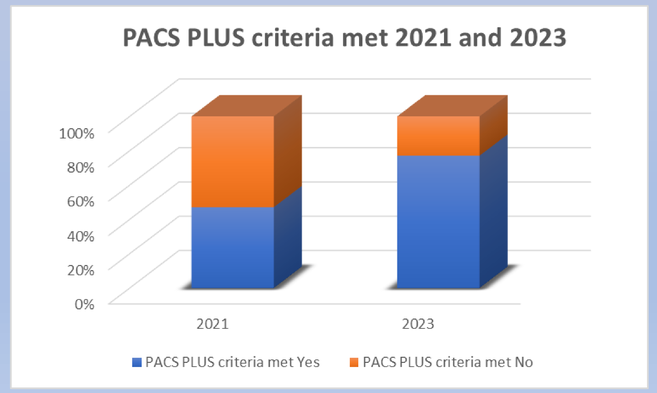
Methods

- A retrospective audit review of all patients who received a LPI in 2021 and in 2023 in the Eye Department at Queen Elizabeth University Hospital Birmingham, UK.
- The hospital laser logbook was reviewed to identify all patients that underwent LPIs between 01/01/2021 – 31/12/2021, and post-RCOphth guideline introduction between 01/01/2023-31/12/2023.
- Electronic patient records for corresponding patients were identified and reviewed to determine the diagnosis PACS and presence of “Plus” criteria.
- Data collection included age, sex, ethnicity, only eye status, high hypermetropia (>+6.00D) use of antidepressants or anticholinergic medication, family history of angle-closure disease, conditions requiring need for repeated dilation, vulnerable adult status and limited access to acute healthcare.
- For the purpose of this audit, only patients diagnosed PACS patients were included in data analysis.

Results

- 48 patients with gonioscopy-confirmed diagnosis of PACS were treated with LPI in 2023, compared with 17 patients treated in 2021. The mean age of patients presenting with angle closure disease was 65.3years in 2021 and 59.3 years in 2023. Gender preponderance in both years gave similar results with female majority (61%) compared with male (39%) patient cohort.

- Prior to PACS Plus guideline implementation in 2021, 9 (52.9%) patients had no “Plus” features compared with 11 (22.9%) in 2023 post guideline practice. 37 (77.1%) patients met PACS Plus criteria in 2023 with 26 (70.3%) patients having 1 “Plus” feature, 10 (27%) had 2 “Plus” features and 1 (2.7%) patient had 3 “Plus” features.



Discussion

- There was a clear improvement in the identification and treatment with LPI in PACS Plus patients after guideline implementation.

- Notably, the “Plus” criteria was met in a significant proportion of patients (64.9%) in 2023 cohort due to the use of antidepressant/anticholinergic medication. Family history documentation failed to specify angle-closure disease in most cases.

Conclusion

- An improvement in clinical practice was observed following the implementation of the 2022 RCOphth guidelines, with better identification of PACS Plus patients at higher risk of vision loss due to angle closure disease. This results in performing LPIs when clinically necessary, and more efficient use of clinical time and resources.

- A significant proportion of confirmed PACS Plus patients were regularly prescribed antidepressant or anticholinergic medications—both known to increase the risk of angle closure.

- This audit highlights the critical importance of assessing all “PLUS” criteria including a comprehensive medication history at each visit and specific family history of angle-closure, for appropriate management in PACS patients.

References: [1]Clinical Guidelines: The Management Of Angle-Closure Glaucoma, Royal College of Ophthalmologists, June 2022.