Rate of Laser Peripheral Iridotomies & Incidence of Acute Angle Closure at Norfolk & Norwich University Hospital – A 10 year retrospective study

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BACKGROUND

- Angle closure is responsible for one-third of the burden of all cases of glaucoma in the UK{1}
- Laser Peripheral Iridotomy (LPI) is the conventional initial management of primary angle closure suspect (PACS), primary angle closure and primary angle closure glaucoma patients.{2}
- Laser peripheral iridotomy is expected to decrease the risk of acute angle closure (AAC) in susceptible patients.
- The trends in LPI rates and AAC presentations to Norfolk and Norwich University Hospital were unknown, including the effect of Covid-19. We assessed these rates in this study.

OBJECTIVES

- To evaluate the number of LPI procedures performed at NNUH from January 2013 to January 2023
- To determine the number of AAC presentations to the Norfolk and Norwich University Hospital each year from January 2013 to January 2023

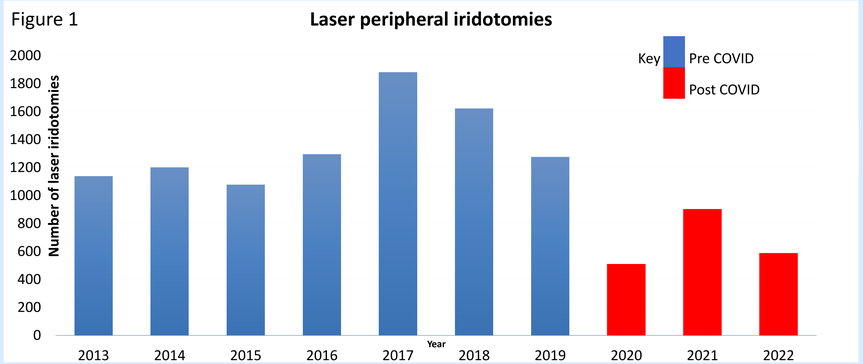
METHODS

- A retrospective single centre study .
- Details of patients who had LPIs from Jan 2013 to Jan 2023 were collected manually from laser log books.
- The patients who had LPIs for AAC were determined through the discharge letters for patients who presented to eye casualty.
- Analysis of the numbers of LPIs performed pre-Covid and post-Covid was made. Regression analysis of the numbers of AAC presentations pre-Covid and post-Covid was performed.

RESULTS

- The total number of patients having LPIs was 11,487 over 10 years (Male:Female ratio was 1:2.3, mean age was 62.7 years).
- There was a significant decline in the number of LPIs performed after the onset of the Covid-19 pandemic (mean 666/year) compared with before the pandemic (mean 1356/year) (p=0.006) (see figure 1).
- The number of patients presenting with AAC showed a significant decline until 2020 (see figure 2). However, since the onset of the Covid-19 pandemic there has been a trend for an increase in AAC presentations each year (see figure 3).

Figure 1



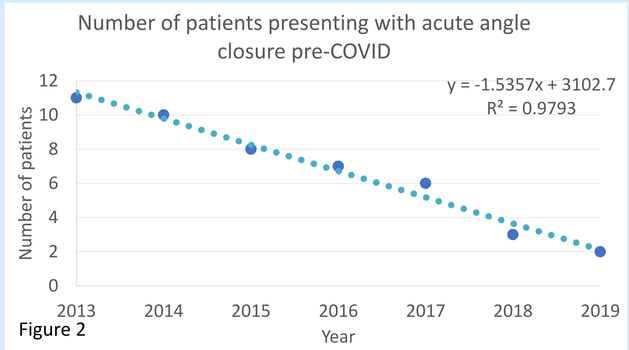


Figure 2

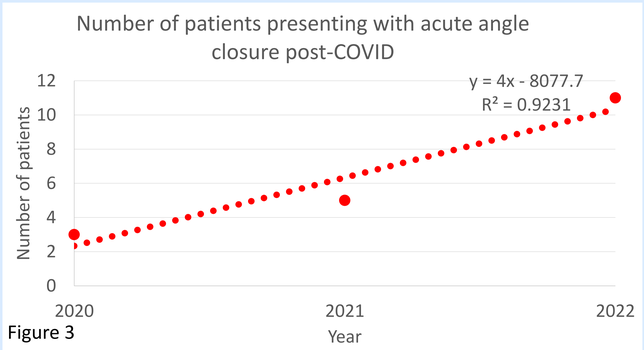


Figure 3

DISCUSSION

- Patients presenting with AAC were significantly reducing over the 7 years pre-Covid pandemic.
- Post onset of the Covid pandemic there has been an increase in the number of AAC presentations.
- The recent increase in AAC presentations may be due to the significantly lower numbers of prophylactic LPIs being performed at Norfolk and Norwich University Hospital since 2020. The lower numbers of LPIs performed is likely to be due to the effect of the Covid pandemic on glaucoma services and to the recent guidance from the Royal College of Ophthalmologists and the College of Optometrists concerning the referral of only 'PACS-PLUS' patients to hospital eye services.{3}

CONCLUSIONS

- The number of LPIs performed has significantly reduced since the onset of the Covid-19 pandemic.
- Prior to the Covid-19 pandemic, there was a significant reduction in the numbers of AAC presentations to Norfolk and Norwich University Hospital each year.
- Since the Covid-19 pandemic the numbers of patients presenting with AAC has increased.

REFERENCES

1) Quigley HA, Broman AT. The number of people with glaucoma worldwide in 2010 and 2020. Br J Ophthalmol. 2006;90(3):262-267.
2) He M, Jiang Y, Huang S, et al. Laser peripheral iridotomy for the prevention of angle closure: a single-centre, randomised controlled trial. Lancet 2019;393:1609-18. 10.1016/S0140-6736(18)32607-2
3) The Management Of Angle-Closure Glaucoma ;Royal College Ophthalmology Guidelines: June 2022