CLINICAL ATTITUDES & PERCEPTIONS OF GONIOSCOPY- A National UK survey

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PURPOSE

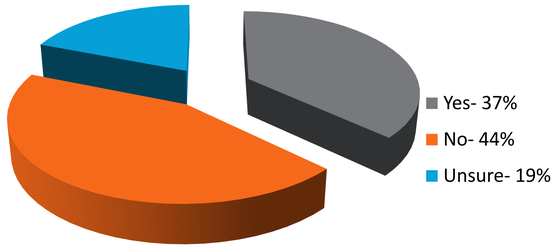
Gonioscopy is an important general skill learnt and practiced by all grades of ophthalmologists across different sub specialties. Although mainly utilised by glaucoma specialists, it is presumed that all ophthalmologists are comfortable in performing gonioscopy and aware about the general principles and interpretation of findings on gonioscopy. The aim of this study is to find out the general attitude, perception and practices around gonioscopy among ophthalmologists in the UK.

METHODS

A National gonioscopy survey was carried out by utilising an electronic questionnaire of 18 questions. The questionnaire was divided further into two sections, first had 10 questions relating to the 'gonioscopy perceptions' while the second section had 8 questions about the 'clinical knowledge and awareness of gonioscopy'

The questionnaire was electronically distributed to all grades of ophthalmologists in the UK using trainee and consultant email and 'WhatsApp' groups. The questionnaire was also emailed to those members of the United Kingdom and Ireland glaucoma society (UKEGS) who had opted in for surveys.

Fig 1: Do you feel comfortable in performing slit lamp gonioscopy in general? (Junior trainees)



RESULTS

A total of 146 responses were analysed, with 36% capturing a consultant population, 20% specialty/associate grade ophthalmologists, 26% senior ophthalmology trainees (year 4-7), 11% junior ophthalmology trainees (year 1-3) and 7% others. 27% of all participants, which included 41% of the senior grade ophthalmologists, identified 'glaucoma' as their sub-specialty area of practice

Overall, 89% of participants felt 'comfortable in performing gonioscopy'. Further sub analysis showed 85% of consultants, 100% specialty/associate specialist, and 89% of senior trainees felt comfortable in performing gonioscopy, but only 37% of the junior trainees felt the same (compared to consultants $p<0.01$) (Fig 1). Only 12% of the junior trainees felt they had adequate training in performing gonioscopy compared with 68% of the total respondents. Those who felt less confident in gonioscopy were much less likely to carry out indentation gonioscopy ($p<0.05$), less likely to know the definitions of angle closure ($p<0.05$) and less likely to know the threshold for treatment for angle closure ($p<0.05$).

Only 21% of participants perform slit lamp gonioscopy 'every day' and 36% 'more than once a week'. Of those who perform gonioscopy 'everyday', 60% were mainly working in glaucoma clinics and 6% were working in other sub-specialties ($p<0.01$). Similar numbers of ophthalmologists working in glaucoma (38%) and other sub-specialties (34%) performed gonioscopy 'more than once a week'.

The most commonly used gonioscopy lens was the 'Zeiss four mirror lens' with 27% of participants using this lens, followed by the 'Goldmann single mirror' (20%) and the 'Magna view' (19%) gonioscopic lenses. Of those using the 'Zeiss four mirror lens', 40% were mainly working in glaucoma clinics and 24% were mainly working in other sub-specialty clinics. Of those using the 'Goldman single mirror' lens, 8% were mainly working in glaucoma clinics and 26% were mainly working in other sub-specialties.

Only 38% participants performed indentation gonioscopy routinely (Fig 2). Of those who performed indentation gonioscopy regularly, 70% were mainly working in glaucoma clinics and 26% were mainly working in other sub-specialties ($p<0.01$).

The main angle grading system used in routine clinical practice by participants, was the modified Shaffer's classification (58%), followed by anatomical description of the drainage angle (31%).

89% participants were aware about the categorisation of narrow angle (PACS, PAC, PACG) and 85% were aware of the threshold of irido-trabecular contact (ITC) where a narrow angle would conventionally require treatment.

Only 81% of participants perform gonioscopy on open angle glaucoma patients 'at the first clinical visit' and 41% perform it 'if the IOP is elevated'.

On analysing the comments related to educational/training material for gonioscopy, it was observed that trainees wished for more videos on gonioscopy and hands on practise sessions.

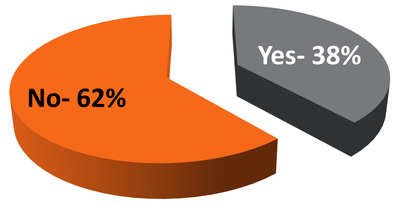
DISCUSSION & CONCLUSION

1. This is the first National study analysing the 'clinical attitudes and perceptions of gonioscopy' among all grades of ophthalmologists in the United Kingdom.
2. This study reflects that junior trainees did not feel comfortable with gonioscopy and felt they did not have adequate training in gonioscopy.
3. Most participants used the modified Shaffer's angle classification in this survey.
4. Most participants did not perform indentation gonioscopy routinely.
5. Most participants believed ≥180 degree iridotrabecular meshwork contact is significant in angle closure.
6. Only 81% of participants perform gonioscopy on a new open angle glaucoma patient which is against the NICE glaucoma guidance (NG81) that states that all glaucoma patients should have gonioscopy performed. [1]

Recommendations

1. We recommend all ophthalmologists to perform gonioscopy robustly for all new glaucoma patients, including indentation gonioscopy (if required).
2. We recommend that there is a need for better training of junior trainees in the skill of gonioscopy.

Fig 2: Do you routinely perform indentation gonioscopy with your gonioscopy lens?



REFERENCES

1. National Institute for Health and Care Excellence. NG81 Glaucoma: diagnosis and management. U K: National Institute for Health and Care Excellence; 2017