Experience of the first Scottish TSC in high volume cataract surgery at GJNH

M Edington, S McLaughlin, P Kearns, G Cormack, J Ellis, J Ross, N Boyle, S Park, A Houtman, E Millar, T Lavy, D Miller, P Flavahan, S Mantry

Golden Jubilee National Hospital

Introduction

- COVID-19 has significantly affected training, and in particular surgical opportunities.
- In the midst of this disruption, the RCOphth approved a new TSC in high volume cataract surgery at the Golden Jubilee National Hospital. This was aimed at a senior trainee, ST6 and above, who had achieved FRCOphth, and was operating independently with at least 300 cases of experience.
- I had the opportunity to be the first trainee to undertake the TSC between August 2020 and February 2021.

TSC Experience and Surgical Results

- For the first few months we were operating in the Vanguard, in a single theatre, with limited patient throughput due to social distancing restrictions post the first wave of COVID-19. Since then, the unit has moved into the new, purpose built Eye Centre (currently running three theatres, and aiming to increase to six).
- It was an extremely supportive environment. Despite my anxiety, having not operated for the previous nine months, I was up and running from day one, averaging 5-7 cases per list. Initially I was supervised, but quickly progressed to more independent lists, with increasingly remote consultant cover, including double lists.
- Throughout my placement, I had the opportunity to work with and learn from all thirteen of the 'in house' consultants, as well as the amazing optometry and nursing teams.
- In six months, I performed 609 phacoemulsifications of varying complexity, including short and long AL, shallow AC, poor dilation, vitrectomised eyes, PXF, Fuch's, post trauma and LASIK eyes, and toric lenses. The department has a Degree of Surgical Difficulty (DSD) grading scale and my case mix was as follows: DSD1- 207, DSD2- 312, DSD3- 90.
- The patients ranged in age from 36 to 94, with a mean age of 73 years. 298 patients (48.9%) had co-morbidities, some multiple, and 324 patients (53.2%) required surgical adjuncts.
- There is an ongoing audit of refractive outcomes and complications, to which I contributed. Unfortunately my data collection is not complete, but based on a snapshot of 95 cases (see tables 1-3), my visual and refractive outcomes are within national and European standards [1-3].

Table 1- Post op VA. One patient had no change in VA from 6/18, but had guarded prognosis due to ERM and dry AMD changes.

VA	Total (95)	Pathology (37)	No pathology (58)
>6/6	58 (61%)	18 (49%)	40 (69%)
>6/7.5	81 (85%)	28 (76%)	53 (86%)
>6/9	88 (93%)	34 (92%)	54 (93%)
>6/12	94 (99%)	36 (97%)	58 (100%)
Lost VA	0	0	0

Table 2- Deviation from predicted post-operative refraction

Deviation	Number of Patients
≤1 dioptre	91 (96%)
≤0.75 dioptre	85 (89%)
≤0.50 dioptre	72 (77%)
≤0.25 dioptre	41 (43%)

- I had 11 complications in total (4 PC ruptures including 1 dropped nucleus, 5 zonule dehiscences, 1 endothelial stripping, 1 retained nuclear fragment). Where appropriate (ie not requiring onward referral) I managed these myself. There was always a consultant available for advice and help when required.

Table 3- Comparison of results to the audit standard of The Cataract National Dataset from 2019 [1,3]

%	My result	Audit standard
PCR rate	0.66%	1.2%
% patients achieving same VA or better	100%	95%
No Pathology, % achieving 6/6	69%	52.3%
No Pathology, % achieving 6/12	100%	94.6%
Co-Pathology, % achieving 6/6	49%	32.1%
Co-Pathology, % achieving 6/12	97%	82%
% with post-op SE within ≤1 dioptre	96%	85%
% with post-op SE within ≤0.5 dioptre	77%	55%

- 4 patients had a refractive surprise between 1 and 2 dioptres, but their corrected VAs were 6/7.5 or better. One of these patients was amblyopic, and one had a posterior capsule rupture with sulcus IOL.

Conclusion

- The College has a requirement of 350 phacoemulsification cases for CCT, but many trainees feel they would like to gain more experience before confidently starting a consultant role.
- Particularly in the post COVID era, where surgical training may be limited, this placement provides an excellent opportunity to increase surgical numbers, develop one's surgical technique on cases of varying complexity from the pooled lists, progressively gain independence in running unsupervised lists, become proficient in team briefs and debriefs, and gain confidence in safe and efficient decision making both in clinic and in theatre. I have had a very positive experience of my TSC at GJNH and feel that it has prepared me for my future role as a consultant.

References

1. National Ophthalmology Database Audit 2019. https://www.nodaudit.org.uk/u/docs/20/urxqilwxmv/NOD%20Audit%20Annual%20Report%202019.pdf
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