Immediate sequential bilateral cataract surgery: patient perceptions and preferences

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Introduction

- Bilateral cataract surgery can be performed on two separate days, known as delayed sequential bilateral cataract surgery (DSBCS), or in both eyes on the same day in one surgical sitting, known as immediate sequential bilateral cataract surgery (ISBCS).
- Although NICE guidance [NG77] recommends offering ISBCS to most cataract patients, recent NOD data suggests that <1% of cataract surgery in the UK is ISBCS (1,2).
- Because of demographic changes in the UK, it is expected that the NHS burden of cataract will increase 50% by 2035 (3).
- ISBCS is known to improve service efficiency, and therefore increasing its practice in the NHS may help tackle the growing burden of cataract (4).
- Surgeon attitudes are known to be a significant barrier to increasing the practice of ISBCS; however, less is known about patient perceptions of ISBCS (5).

Objective

*To quantify patient **awareness** and **acceptability** of ISBCS,*
*and to gain a more complete understanding of patient **attitudes** towards ISBCS*

Methods

- A cross-sectional study was performed using an investigator-led structured questionnaire, which contained open-ended and closed-ended questions
- Surgery naïve (patients that have never undergone cataract surgery) and post-operative ISBCS and DSBCS patients were recruited across three hospitals sites of Moorfields Eye Hospital NHS Foundation Trust.
- Descriptive summary statistics are reported for responses to closed-ended questions, and responses to open-ended questions are tabulated in summary.

Results

- 183 patients completed the questionnaire; the mean age of participants was 70.5 (9.9) years and 58% were female.
- 66 surgery naïve and 117 post-operative participants completed the questionnaire, including 4 post-operative ISBCS patients.
- Awareness: 78 (43%) participants were aware of ISBCS; 46 (59%) of these participants were aware via clinic staff and 20 (26%) were aware via family and friends. Less common sources of awareness were hospital patient information and online.
- Acceptability: Of the 27 surgery naïve participants offered ISBCS by an ophthalmologist in clinic during the study, 15 (56%) chose to be listed for ISBCS.
- Of the remaining 39 surgery naïve patients not offered ISBCS, 15 (38%) said they would have chosen it if given the choice (table 1).
- Of the remaining post-operative participants, over a third reported that they would choose ISBCS if they were to be given the choice (table 1).

"If given the choice (again), I would choose to have cataract surgery in both eyes on the same day", n (%)			
	Surgery-naïve participants not offered ISBCS	Post-operative participants	Overall
Strongly agree	10 (25.6%)	25 (21.4%)	35 (22.4%)
Agree	5 (12.8%)	11 (9.4%)	16 (10.3%)
Neutral	3 (7.7%)	13 (11.1%)	16 (10.3%)
Disagree	6 (15.4%)	22 (18.8%)	28 (17.9%)
Strongly disagree	15 (38.5%)	46 (39.3%)	61 (39.1%)
Total participants	39	117	156

Table 1. Acceptability of ISBCS to participants

- Attitudes: 142 responses mentioned reasons in favour of ISBCS and 79 responses mentioned concerns regarding ISBCS, which are summarized in table 2 and 3 (only reasons/concerns mentioned by >5% of respondents are shown).
- The proportion of responses that mentioned each reason/concern are also shown in table 2 and 3.

Reasons given in favour of ISBCS, n (%)	Surgery-naïve	Post-operative	Overall
Convenience/to save time and travel (as there would be fewer hospital visits)	18 (54.5%)	16 (34.8%)	34 (43.0%)
To avoid the anxiety/stress of an additional operation/additional hospital appointments	11 (33.3%)	11 (23.9%)	22 (27.8%)
To reduce waiting time for surgery	7 (21.2%)	15 (32.6%)	22 (27.8%)
To avoid visual imbalance between the 1st and 2nd surgery	4 (12.1%)	17 (37.0%)	21 (26.6%)
To improve eyesight more quickly	10 (30.3%)	8 (17.4%)	18 (22.8%)
To minimize the time requiring eye drops	2 (6.1%)	7 (15.2%)	9 (11.4%)
To reduce time off work	2 (6.1%)	5 (10.9%)	7 (8.9%)
More efficient/beneficial for the NHS	3 (9.1%)	4 (8.7%)	7 (8.9%)

Table 2. Reasons given by participants for choosing ISBCS

Reasons given for not choosing ISBCS/concerns regarding ISBCS, n (%)	Surgery-naïve	Post-operative	Overall
The risk of complications (e.g., infection) in both eyes/concerns about safety	27 (57.4%)	50 (52.6%)	77 (54.2%)
The difficulty of coping with impaired vision in both eyes while eyes recover	12 (25.5%)	36 (37.9%)	48 (33.8%)
The need for additional care/support while recovering	8 (17.0%)	11 (11.6%)	19 (13.4%)
The need to wear patches that obscure both eyes after surgery	3 (6.4%)	16 (16.8%)	19 (13.4%)
The difficulty of administering eye drops during the recovery period	2 (4.3%)	9 (9.5%)	11 (7.7%)
Not having sufficient eyesight to travel home after surgery	2 (4.3%)	8 (8.4%)	10 (7.0%)

Table 3. Participant concerns regarding ISBCS

Discussion

- Although <1% of NHS cataract surgery is ISBCS, over a third of NHS patients in our study would be willing to undergo ISBCS if given the choice (2).
- Patients in our study were recruited from clinics in which ISBCS is commonly performed. However, only around 40% were aware of ISBCS and most were aware via clinic staff.
- One of the main concern regarding ISBCS was the risk of bilateral complications (5). However, a large case series of ISBCS (95,606 patients) report no incidences of bilateral endophthalmitis, and randomized controlled trials have identified no safety concerns (6,7).
- Many patients had concerns related to the recovery period of ISBCS. This included misunderstandings, such as the need to wear eye patches that obscure both eyes.
- Some benefits of ISBCS, such as avoiding visual imbalance between the 1st and 2nd surgery, were more likely to be reported by post-operative patients than surgery naïve patients.

Conclusions

- Many more NHS cataract patients would be willing to undergo ISBCS if given the choice.
- Increasing patient education about ISBCS may improve awareness amongst NHS patients and tackle barriers to patients undergoing ISBCS.

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