

Safety and Efficiency of Same-day Bilateral Femtosecond Laser-assisted Cataract Surgery in an Office-based Setting

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Disclosures

- IOR Partners
- LENSAR
- RxSight

Introduction

- With the aging population, the volume of cataract surgery has increased.
- While cataract can simultaneously affect both eyes, surgery is typically performed unilaterally in one eye at a time.
- The second eye surgery is usually performed a few weeks after the first eye surgery for bilateral cataract.
- However, keeping into consideration the high volume of cataract cases, same-day bilateral cataract surgery can be performed to improve overall efficiency and patient experience.
- As technological innovations have made cataract surgery a daycare procedure, there has been increased interest in office-based setting (OBS).
- OBS takes place in specialized procedure rooms within a physician's practice, built and run with processes and protocols similar to ambulatory surgery Centers (ASCs).



Purpose

- To evaluate the safety and efficiency of same-day office-based bilateral femtosecond laser-assisted cataract surgery.

Methods

STUDY DESIGN

- Retrospective chart review of 153 subjects (306 eyes) who underwent same-day, bilateral office-based laser-assisted cataract surgery from Jan to July 2024.

STUDY PROCEDURE

- Femto and phaco was first completed in one eye, followed by the second eye.
- Preparations of surgical trolleys and draping were done with separate instrumentation, tubing/disposables for each eye to maintain safety.

OUTCOME MEASURES

- Incidence of intraoperative and postoperative complications.
- Rates of return to OR, referral to retinal specialty, and utilization of hospital or emergency services.
- Time and motion data from the patient's and surgeon's perspectives were tracked and evaluated.

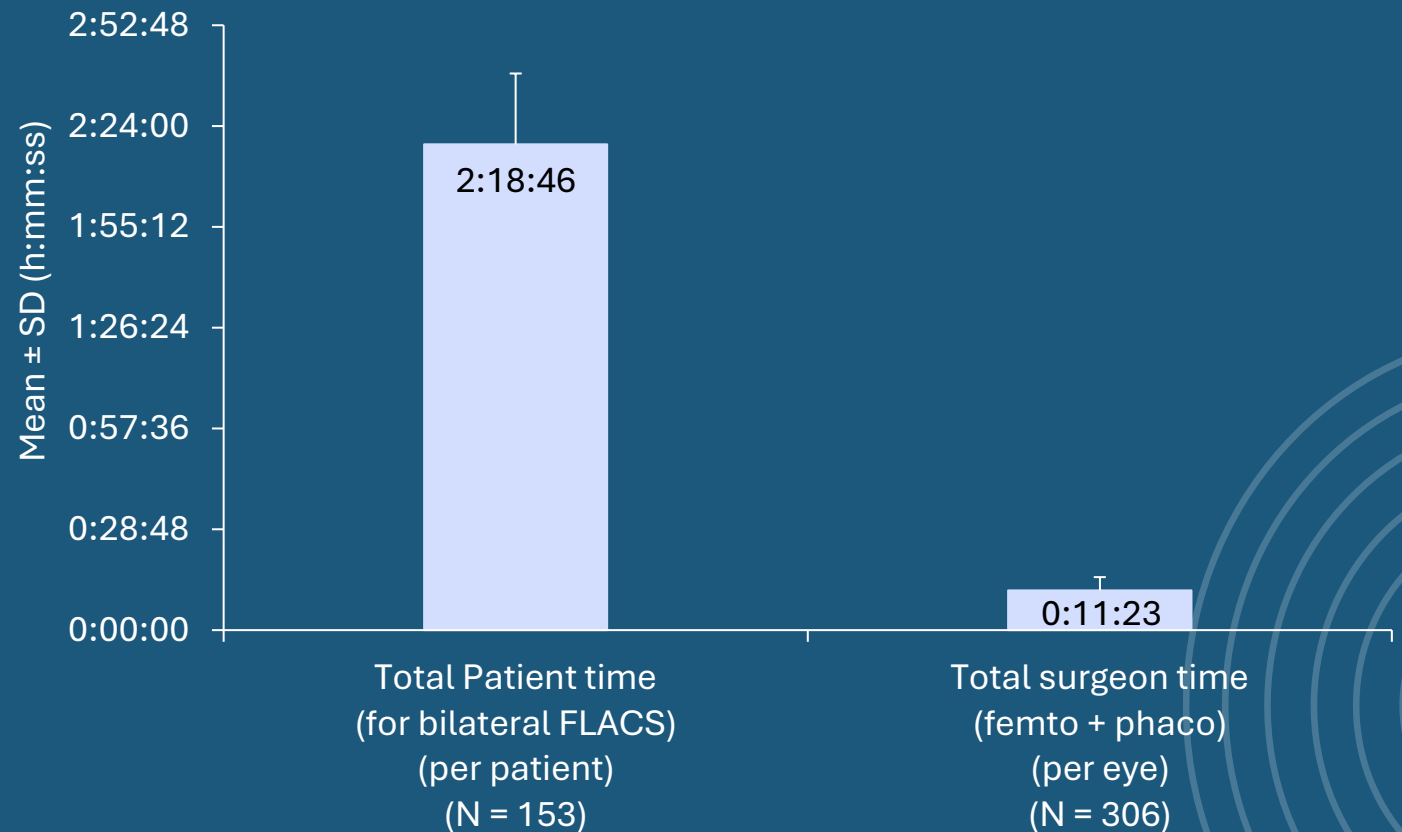
Results

- There were no intra- or post-operative complications following same-day bilateral cataract surgery in an office-based setting.
- None of the patients required a visit to a retina specialist or any emergency services.
- Only 1 patient (0.3 %) required a return to the operating room (OR) following office-based same-day bilateral cataract surgery for the removal of retained cortical fragments.

	n (%)
Toxic anterior segment syndrome	0 (0.0)%
Endophthalmitis	0 (0.0)%
Corneal edema	0 (0.0)%
Unplanned vitrectomy	0 (0.0)%
Return to operating room (OR)	1 (0.3%)
Referral to retinal surgeon	0 (0.0)%
Hospital or emergency services utilization	0 (0.0)%

Results

- The surgeon took less than 12 minutes per eye to complete the phacoemulsification and IOL implantation.
- In an office-based setup, patients spent an average of 2 hours and 20 minutes while undergoing surgery in both eyes.



Discussion

- Unilateral cataract surgery is preferred over bilateral cataract surgery to avoid the potential risk of developing endophthalmitis.
- However, in the present study, same-day bilateral cataract surgery performed in an office-based setting was found to be safe.
 - There were no intra or postoperative complications.
 - None of the patients experienced postoperative endophthalmitis or corneal edema following bilateral same-day cataract surgery.
- A return to the OR is undesirable and is commonly accepted as a quality metric for surgery.
 - In this study, only 1 patient needed to return to the OR, indicating that office-based bilateral same-day surgery is safe and effective.

Discussion

- Same-day bilateral cataract surgery seems to be advantageous in terms of:
 - faster visual rehabilitation in both eyes.
 - reduced cost not only in terms of hospital expenditure but also cost saved in patient travel, home care costs, and reduced loss of working time from the office.¹⁻³
 - improved patient experience due to reduced hospital visits both preoperatively and postoperatively, time saved in hospital admission and documentation.
 - improved operating room (OR) efficiency in terms of reduced patient OR transfer times and patient preparation times within the OR, allowing more cataract cases to be performed within the given time.^{1,4}
- Integrating clinics and surgery in one location, the physicians performing surgery in OBS gain more control and flexibility over scheduling.

THANK YOU

