

**SURGICAL PARAMETERS AND
TIME EFFICIENCY**
OF A NOVEL, INTEGRATED
FEMTOSECOND LASER-
PHACOEMULSIFICATION SYSTEM

Harvey S. Uy, MD
Peregrine Eye and Laser Institute
Makati, Philippines



Disclosures

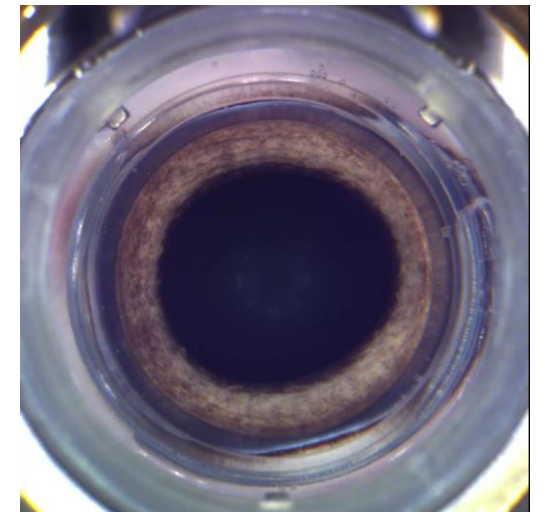
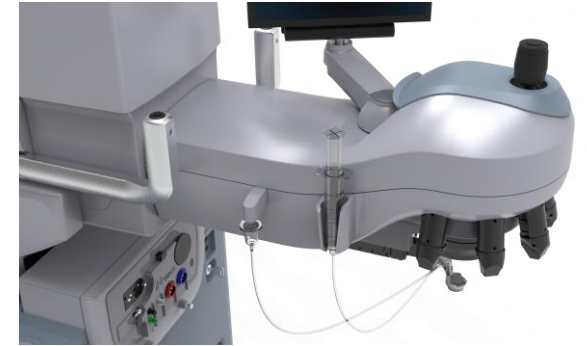
- HSU has received research funding from:
 - AbbVie
 - Alcon Surgical
 - Hoya Surgical Optics
 - LENSAR
 - Novartis
 - Opthea
 - Santen

Introduction

- Femtosecond laser-assisted cataract surgery (FLACS) is effective and safe for cataract surgery
- Limitations:
 - Space requirements for 2 machines
 - Need to move patients from FEMTO to PHACO areas
 - Decrease time efficiency
 - Cost of 2 machines
- An integrated FSL-PHACO system allows FEMTO-LASER and PHACO to be performed in a single sterile environment
- Seamless transition may improve overall efficiency and surgical workflow

Integrated FSL-PHACO

- Instantaneous imaging (6 cameras)
- Faster dual pulse laser
- Stronger suction
- Integrated PHACO machine
- Sterile FLACS procedure
- No patient movement



*ALLY Advanced Cataract Treatment System
LENSAR, Orlando, FL*

Purpose

- To report the surgical parameters and time efficiencies in eyes undergoing FLACS using a new generation, integrated femtosecond laser (FSL)–phacoemulsification (PHACO) system.

Patients and Methods

Study design: Single-center, prospective, interventional, open-label, non-randomized, clinical study

Subjects

- 67 eyes FLACS with integrated FSL-PHACO device
- 24 eyes FLACS with separate FSL and PHACO machines

Inclusion criteria:

- **Age** >21 years
- Clear corneas
- Operable cataract
- Consent

Exclusion criteria:

- Corneal or ocular pathology
- BCVA < 20/100 in contralateral eye

Outcome measures included Mean:

- LOCS III grading
- Suction time
- Effective Phaco Time
- Transition time
- Overall OR time

Follow-up: Postoperative DAY 1; WEEKS 2 & 6

Study Design

67 eyes of 67 patients



ALLY ADAPTIVE CATARACT
TREATMENT SYSTEM

24 eyes of 24 patients

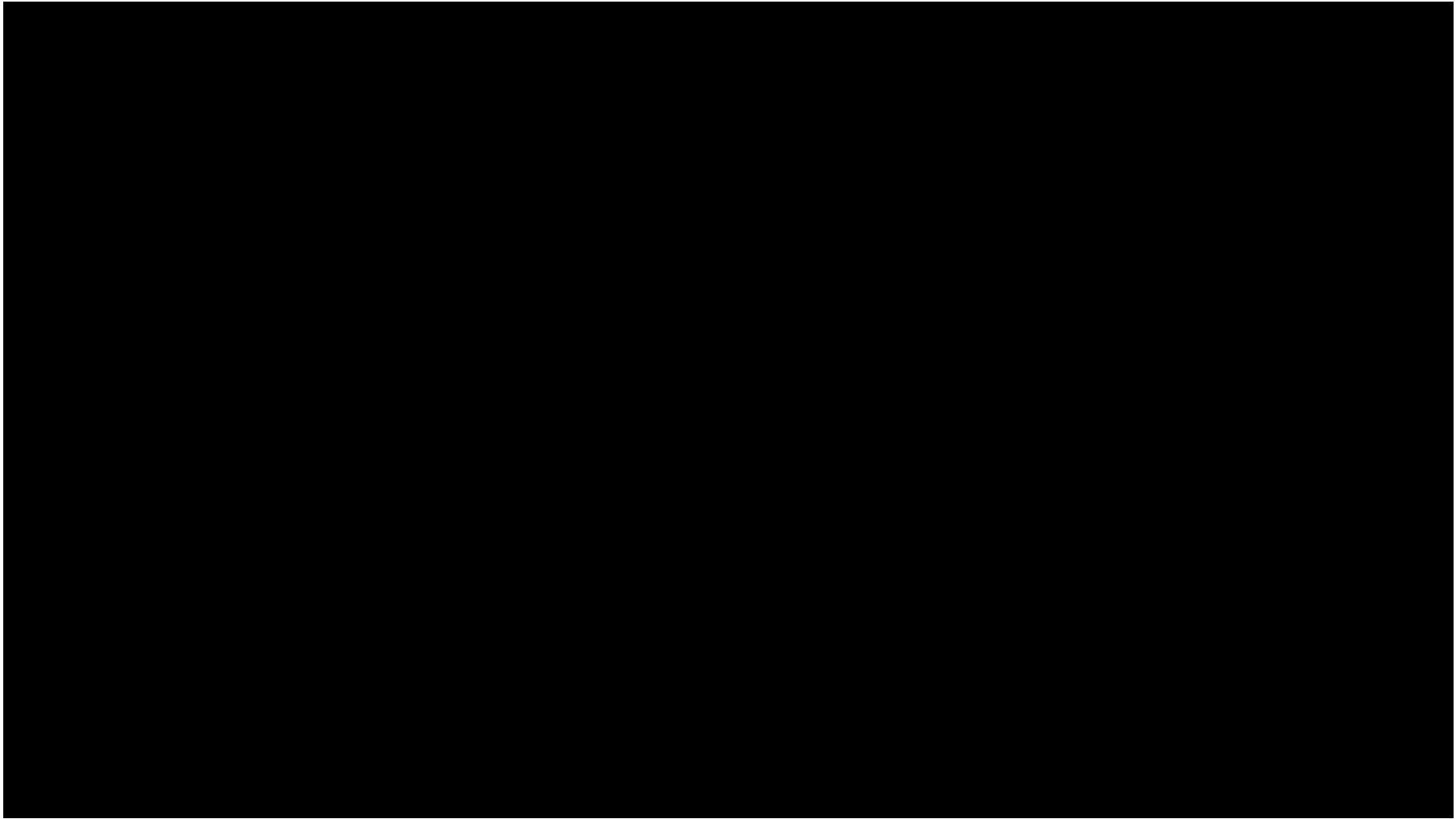


LENSAR GEN SYSTEM



OERTLI CATARHEX 3
PHACO SYSTEM

Patients and Methods



Results

	LENSAR GEN SYSTEM (n= 24)	ALLY SYSTEM (n= 67)	P value
Age (yrs)	67.2 ± 13.9	72.3 ± 8.4	0.090
LOCS III	2.76 ± 1.18	3.43 ± 1.88	0.107
FEMTO Time (dock to undock)	Overall 2.74 ± 0.1 mins	Overall 1.55 ± 0.25 mins	0.001
Scan Time	30 secs	10 secs	0.001
Laser Time	30 secs	10 secs	0.001
Transition time (mins)	6.9 ± 1.4	1.0 ± 0.6	0.001
PHACO OR time (mins)	12.2 ± 3.1	10.2 ± 1.94	0.004

Mean Time Saving
9.1 minutes per case

Increasing Case load by 1 case per
hour / 4 cases per OR session

Discussion & Conclusion

- An integrated FSL-PHACO system significantly reduces FEMTO laser and PHACO times
- This system eliminates the need to transport patient from laser to PHACO areas with a mean reductio of 9 minutes per case.
- These time efficient technologies may help improve surgical workflow and translate into more surgeries per day without additional manpower or space
- The integrated FSL-PHACO system enhances surgical workflow and time efficiencies and may lower barriers for FLACS adoption

THANK YOU