



Introduction

This is the era of surgical innovations in glaucoma. Many companies are racing in the search for the optimal glaucoma surgery:

- Micro-incision with minimal trauma
- High safety profile with a rapid recovery
- Short learning curve
- High Efficacy

Some of the MIGS partially achieve those goals but none achieve adequate IOP control over time in advanced disease. The search for new filtration procedures led Assia and colleagues to use the CO₂ laser as a mean of simplified filtration procedure.

The CO₂ IOPTiMate Laser System

CO₂ Laser Unique Characteristics

- ✓ Highly absorbed by water
- ✓ Effectively ablates dry tissue

The IOPTiMate System

- ✓ CO₂ Laser System
- ✓ Control Unit
- ✓ Micro-manipulating unit



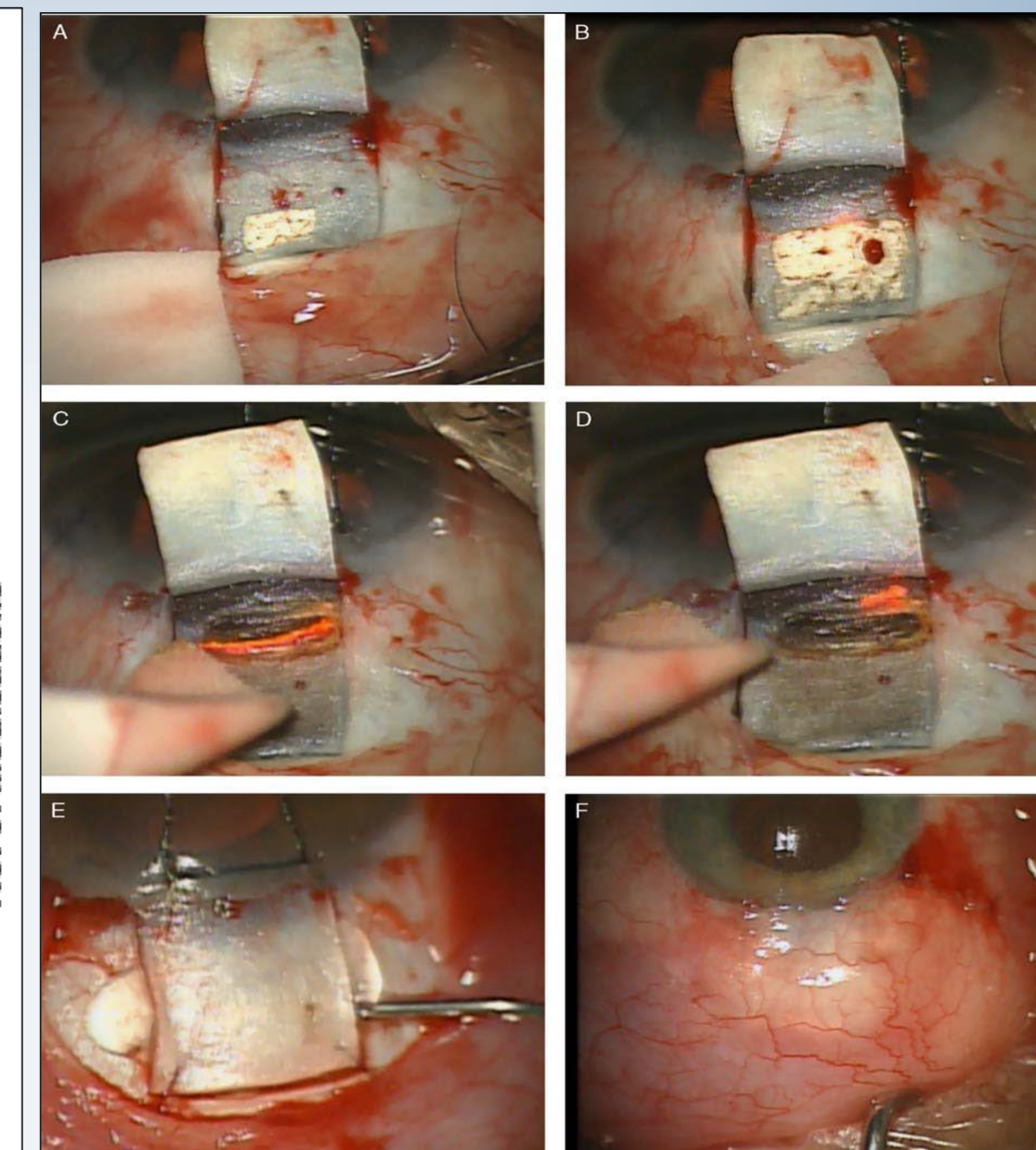
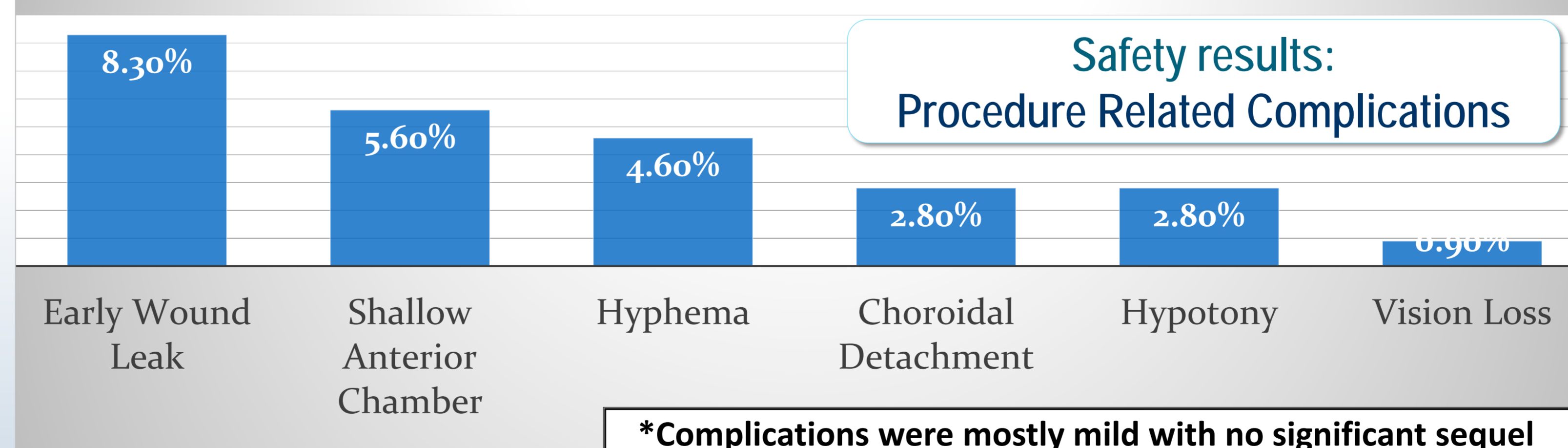
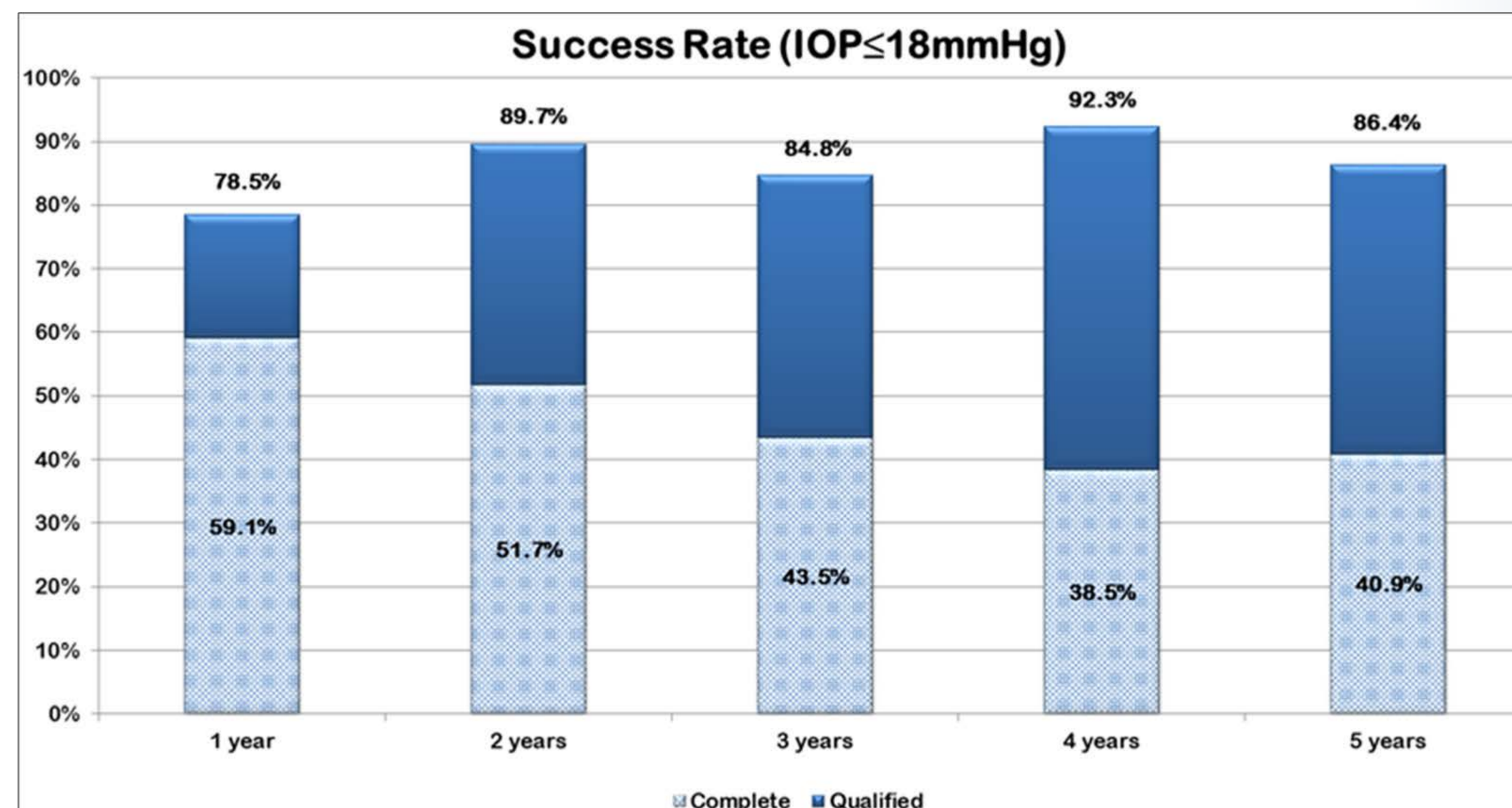
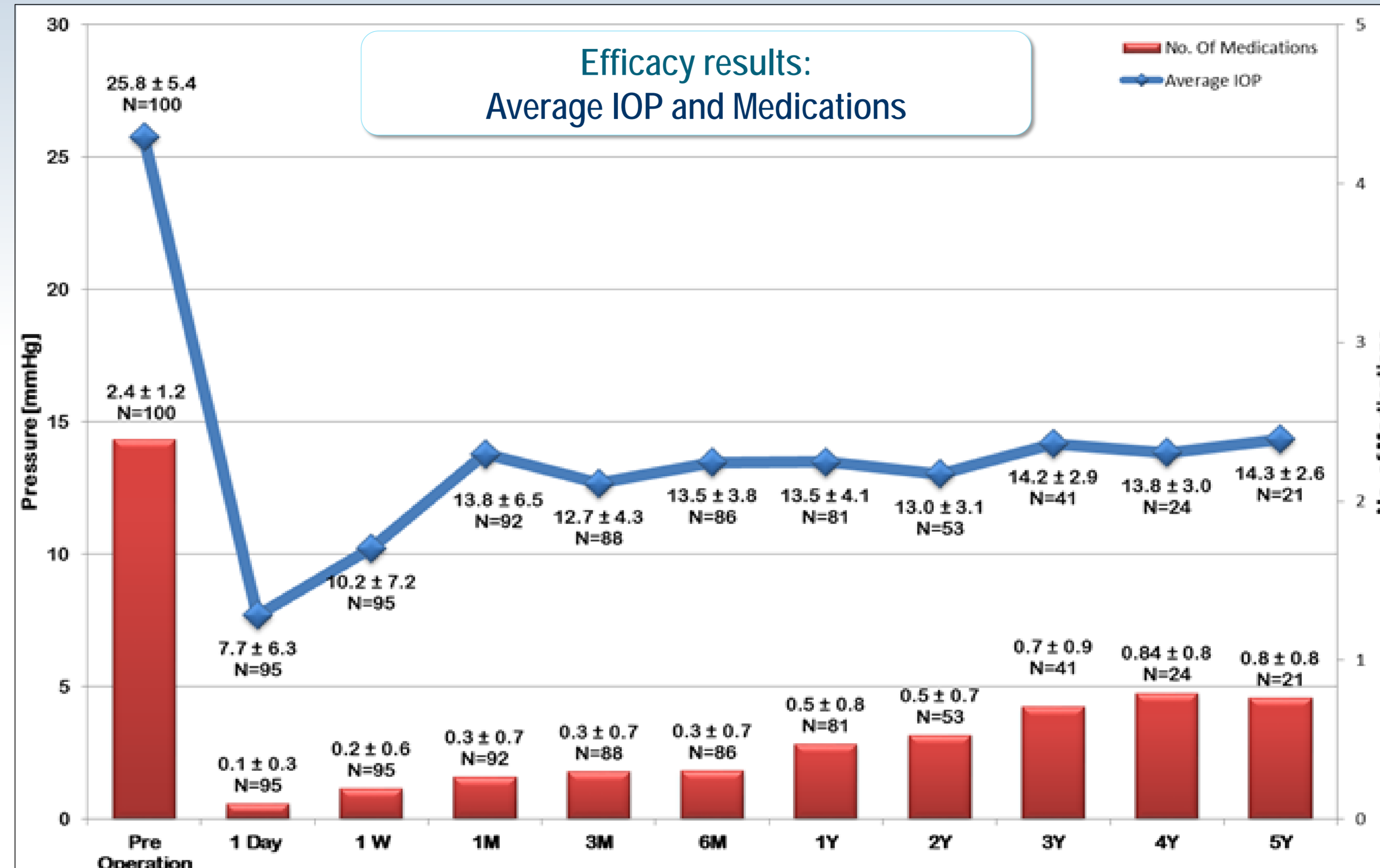
Purpose

To evaluate the safety and efficacy of CLASS in patients with open angle glaucoma.

Methods

- A prospective, single-arm, non-randomized clinical trial at 9 centers worldwide.
- Candidates for primary filtration surgery with POAG or PEXG
- baseline IOP >18 mmHg on maximal treatment were included
- The CLASS procedure ("IOPTiMate"; IOPTima Ltd, Israel) was performed
- A half- thickness scleral flap was created and the CO₂ laser was used to achieve deep scleral ablation and un-roofing of Schlemm's Canal
- Complete success was defined as 5 ≤ IOP ≤ 18 mmHg and 20% IOP reduction with no medications, and qualified success with or without medications.
- Five year follow-up

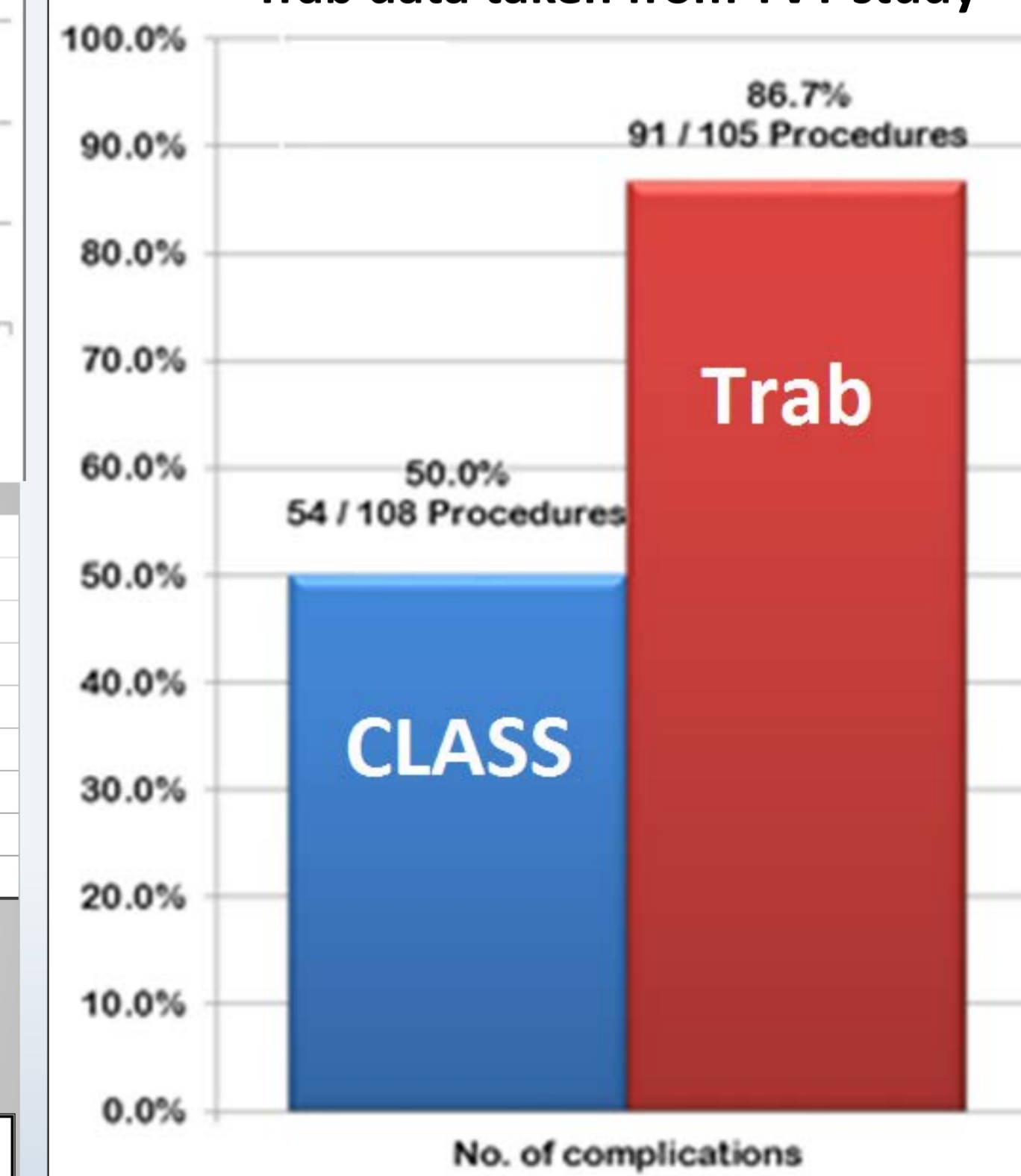
Results



- 111 patients (Efficacy:n=100)
- 55% males, 74% Caucasians
- Age: 69.3 ± 12.8 years
- Glaucoma type:
 - POAG – 81 (73%)
 - PEXG – 26 (23%)
 - Narrow Angle – 4 (4%)
- MMC in 89% of procedures
- 12 needling and 18 goniopuncture performed

No. of Complications - 5 Year

*Trab data taken from TVT study



Conclusion

Long term results suggest that CLASS procedure is a safe, effective, and simple technique for treating patients with open-angle glaucoma.

References

1. Assia et al. Graefes (2007)
2. Geffen et al. J Glaucoma (2012)
3. Ton et al. J Glaucoma (2012)
4. Greifner et al. J Glaucoma (2014)

Disclosure

1. Supported in part by IOPTima LTD
2. Authors have no conflict of interest to report