



YORKSHIRE EYE SPECIALISTS

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Honorary senior lecturer  
Professor-in practice



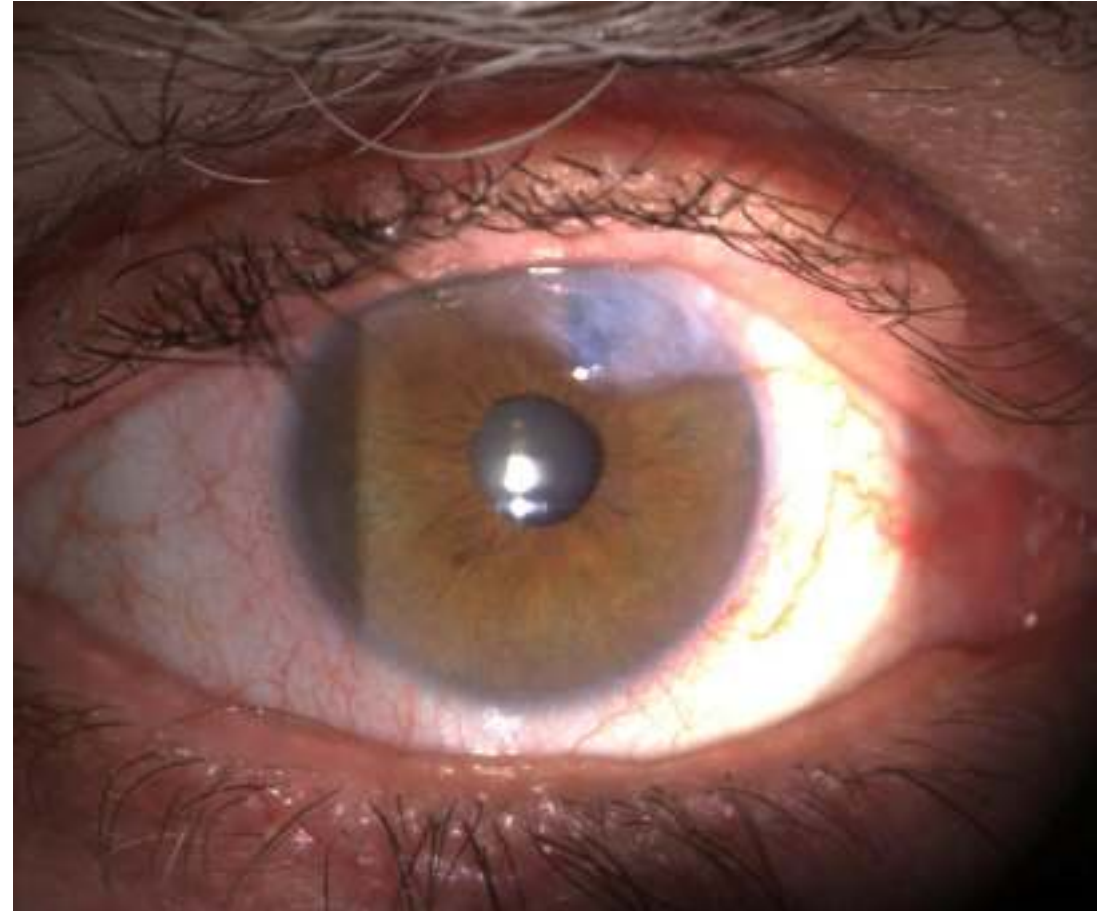
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# Financial disclosure

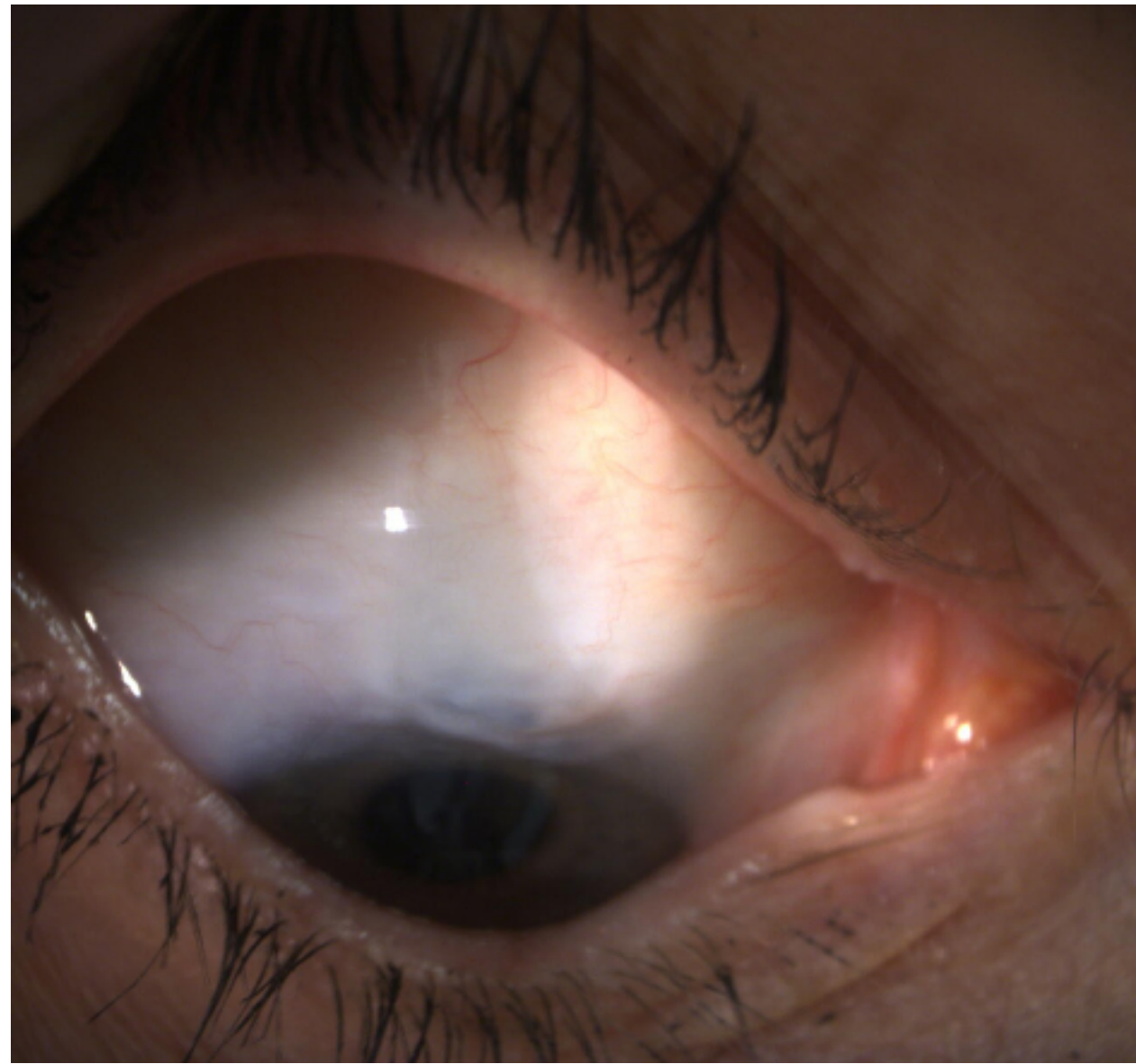
- Honoraria from Glaukos, Thea, SUN pharma, J&J, BVI and iStar medical
- Consultancy fees from Thea, Scope, Alcon, iStar medical, Gore and Santen
- Educational grants from J&J, Thea and Glaukos

# Bleb photos of trabeculectomy





# Bleb photos from preserflo



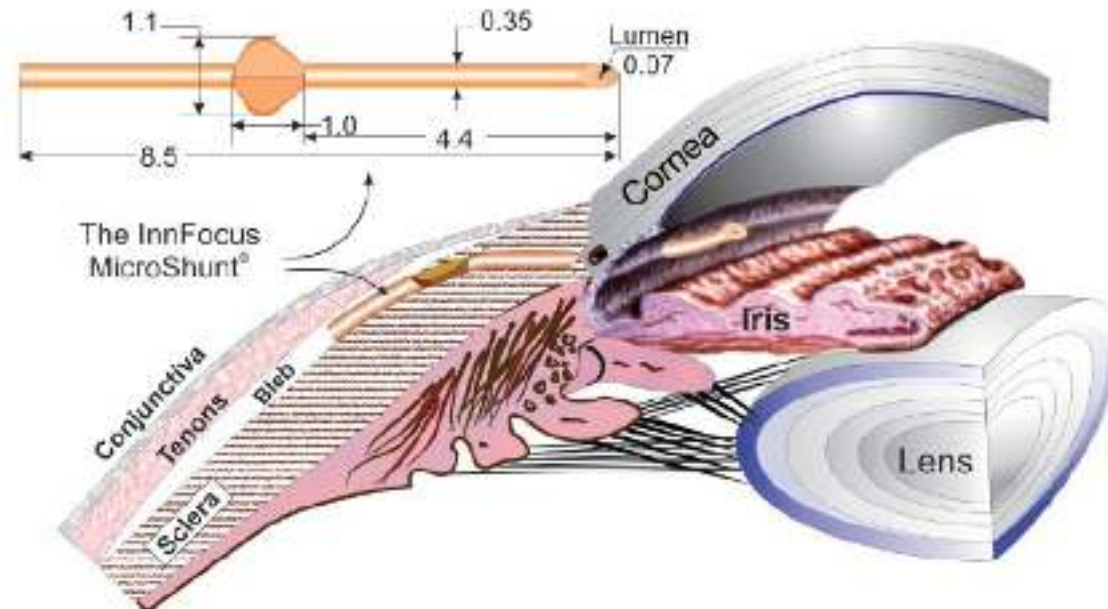
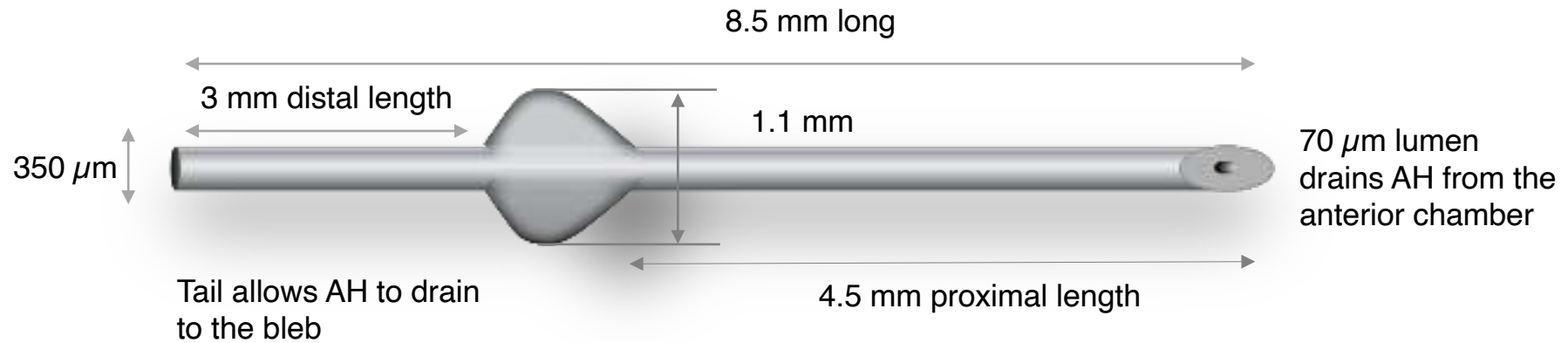


# John E Cairns

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1925 - 1986

# Preserflo



# Is it similar to XEN implant?

- SIBS material
- Larger internal lumen size
- Implantation technique
- Outcome and safety
- The qualified success at 2 years is better in preserflo compared with XEN (79% vs 73%)



# Efficacy

## **Ab-Externo MicroShunt versus Trabeculectomy in Primary Open-Angle Glaucoma**

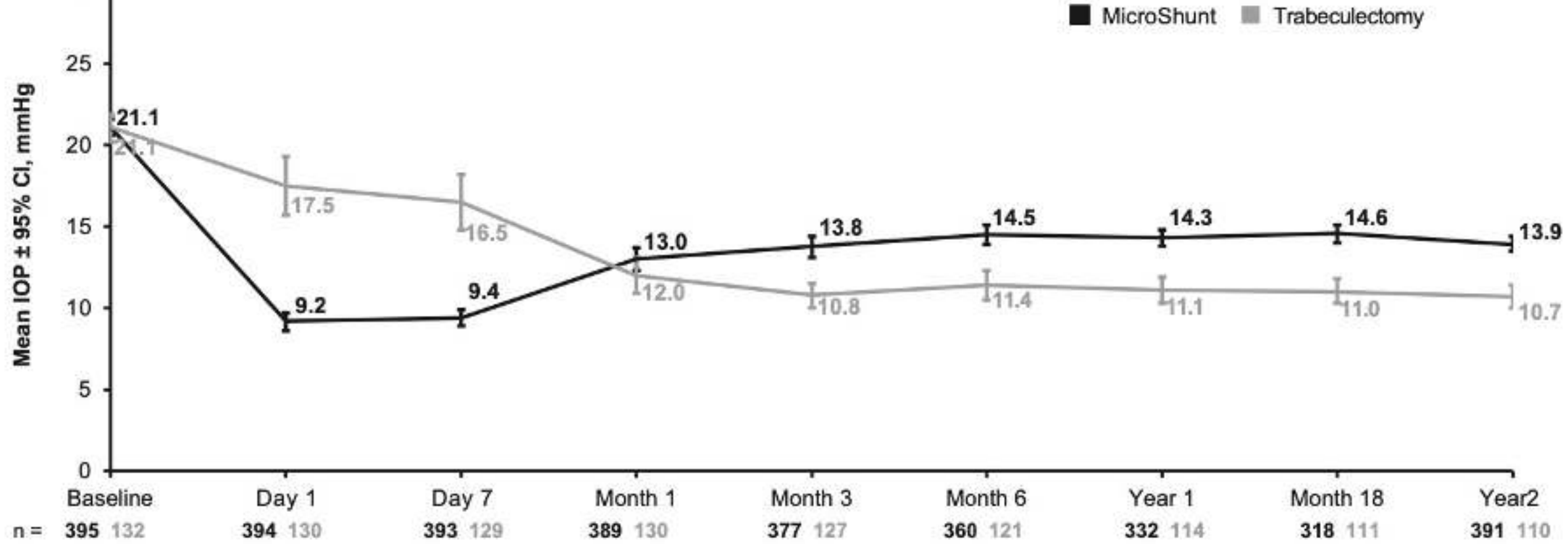
*Two-Year Results from a Randomized, Multicenter Study*

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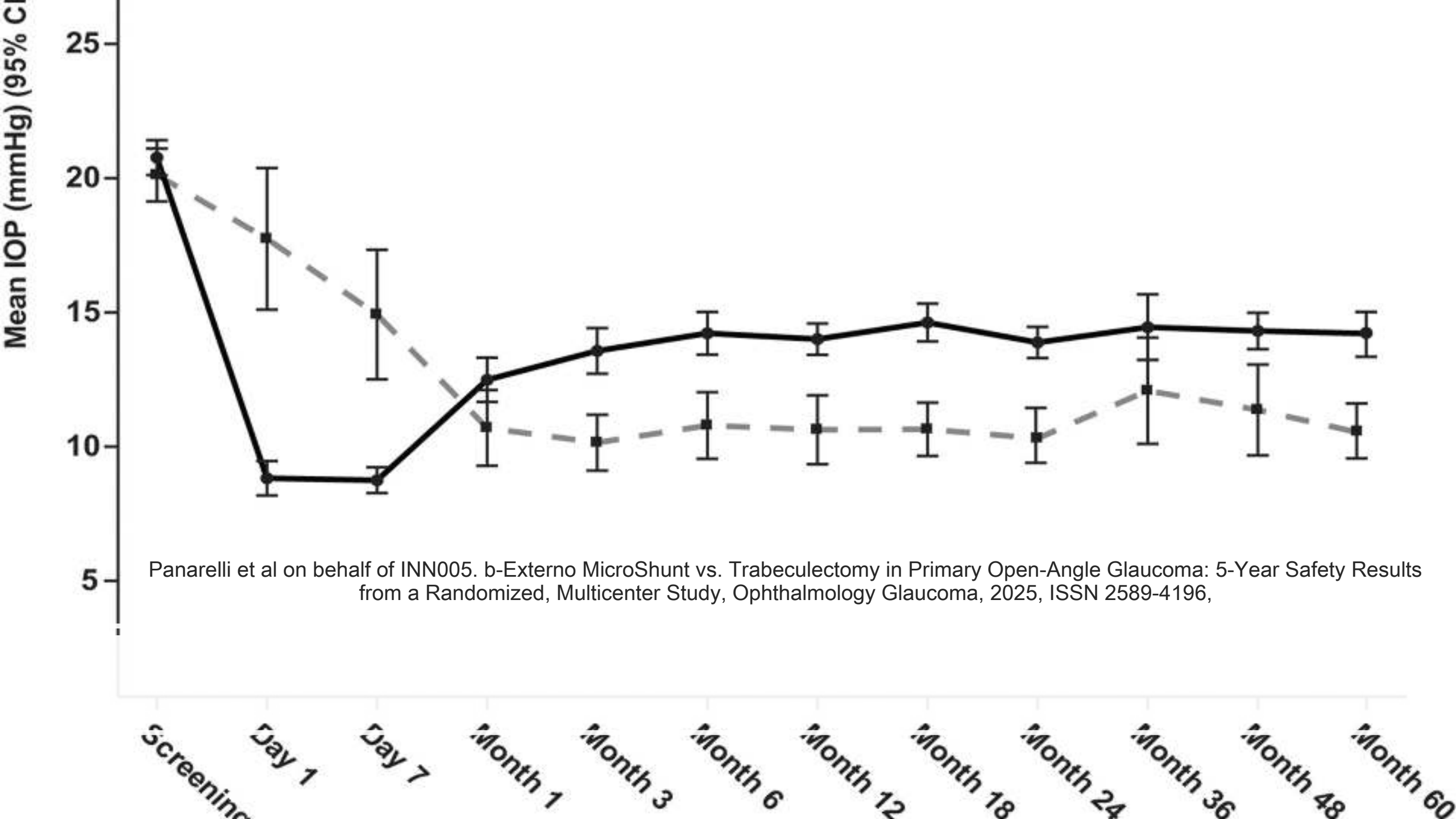
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Ophthalmology 2024;131:266-276





• IOP was lower in trab group at 24 months (11 mmHg) vs 13.9 mmHg in preserflo group



# Caveat

- Surgeons were going through their *learning curve* with preserflo
- **0.2 mg/ml of MMC** was used for **2 minutes** in both groups

|                                                            | PRESERFLO |          |                 | Trabeculectomy |          |                 |
|------------------------------------------------------------|-----------|----------|-----------------|----------------|----------|-----------------|
|                                                            | Flat AC   | Hypotony | Endophthalmitis | Flat AC        | Hypotony | Endophthalmitis |
| INN003<br>Batlle 2016<br>(n=23)                            | 13%       | 17%      | n.a             | n.a            | n.a      | n.a             |
| INN007<br>Beckers<br>2022<br>(n=100)                       | 2.5%      | 11%      | 0%              | n.a            | n.a      | n.a             |
| INN005<br>Panarelli<br>2024, 2-<br>year results<br>(n=532) | 6.8%      | 3%       | 1%              | 8.4%           | 13%      | 0               |
| INN005<br>Panarelli<br>2025, 5-<br>year (279)              | n.a       | 0.5%     | n.a             | n.a            | 6%       | n.a             |
| Van                                                        | 3%        | 1%       | 1.4%            | 14%            | 6%       | 3.1%            |

1. Batlle JF, Fantes F, Riss I, Pinchuk L, Alburquerque R, Kato YP, Arrieta E, Peralta AC, Palmberg P, Parrish RK 2nd, Weber BA, Parel JM. Three-Year Follow-up of a Novel Aqueous Humor MicroShunt. J Glaucoma. 2016 Feb;25(2):e58-61. doi: 10.1097/JGL.0000000000000021. Epub 2016 Feb 19.

2. Beckers HJM, Aptel F, Webers CAB, Bluwol E, Martínez-de-la-Casa JM, García-Feijoó J, Lachkar Y, Méndez-Hernández CD, Riss I, Shao H, Pinchuk L, Angeles R, Sadruddin O, Shaarawy TM. Safety and Effectiveness of the PRESERFLO MicroShunt in Primary Open-Angle Glaucoma: Results from a 2-Year Multicenter Study. Ophthalmol Glaucoma. 2022 Mar-Apr;5(2):195-209. doi: 10.1016/j.ophgl.2021.100001. Epub 2022 Mar 19.

3. Panarelli J., Moster M., et al. Ophthalmology 2024; 131: 266-276

4. Panarelli et al. Extern MicroShunt Trabeculectomy in Primary Open-Angle Glaucoma: 5-Year Safety Results from a Randomized, Multicenter Study. Ophthalmology Glaucoma, 2025, ISSN 2589-4196, doi: 10.1016/j.ophgl.2025.100001.

5. Van Lancker L, Saravanan A, Abu-Bakra M, Reid K, Quijano C, Goyal S, Rodrigues I, Lascaratos G, Trikha S, Barwood C, Combe E, Kulkarni A, Lim KS, Low S. Clinical Outcomes and Cost Analysis of PreserFlo versus Trabeculectomy for Primary Open-Angle Glaucoma. Ophthalmology Glaucoma. 2023 Jul-Aug;6(4):248-257. doi: 10.1016/j.ophgl.2023.100001. Epub 2023 Jul 19.



# Endothelial cell loss

|                                                                         | Preserflo | Trabeculectomy |
|-------------------------------------------------------------------------|-----------|----------------|
| INN005 Baker 2021                                                       | -5.2%     | -6.9%          |
| Hirooka 2020                                                            | -         | -6.3%          |
| Ibarz-Barbera 2022                                                      | -7.4%     | n.a            |
| Cypass ECL at 5 years was -11.2% when it was withdrawn from the market! | -12.5%    | -14.6%         |

- **Cypass ECL at 5 years was -11.2% when it was withdrawn from the market!**
- **Cataract surgery ECL at 5 years is -7.9%.**

# Cost

## **Clinical Outcomes and Cost Analysis of PreserFlo versus Trabeculectomy for Glaucoma Management in the United Kingdom**

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Ophthalmology Glaucoma 2023;6:342-357

134 eyes with primary and secondary glaucoma were included (70 preserflo and 64 trabeculectomy)  
Mean follow up 19.9 months

# Cost and time

- The total cost of preserflo was £3,972 vs £4,216 for trabeculectomy (-£245)
- Cost savings of MicroShunt compared with trabeculectomy increased to £566 when applying a discount of 30%

|              | Preserflo           | Trabeculectomy |        |
|--------------|---------------------|----------------|--------|
| Theatre time | <i>58.0±23.3min</i> | 75.3±24.3 min  | P<0.05 |



10 mmHg

10 minutes

10 years

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Be Inspired by your past,  
but don't live in it.

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***Vote for preserflo and live happily ever after!***

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