Novel delivery platform for suprachoroidal administration using west's advanceable microneedle device

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Challenges with Conventional Techniques

- Anatomical variability and collapsed space
- Requires consistent scleral pressure and longer injection time
- Slow injection reduces patient discomfort.
- Dimpling is essential to expand the suprachoroidal space.

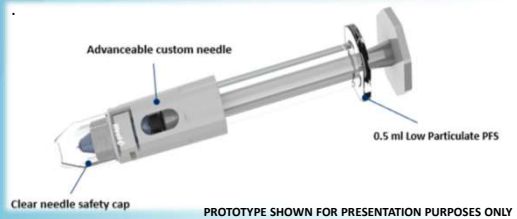
PODD® PARTNERSHIP OPPORTUNITIES IN DRUG DELIVERY

OVERVIEW

Suprachoroidal Delivery

- Minimally invasive, in-office procedure offers a promising route for targeted retinal drug delivery.
- Drug placement between sclera and choroid enables broad retinal and choroidal coverage.
- Choroidal apposition may enhance inflammation control in geographic atrophy, especially with extended delivery systems.
- Improved tissue access, along with physician training and patient education, can significantly boost therapeutic outcomes.

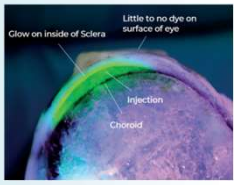
West Suprachroidal delivery platform aims to enhance precision and accuracy by reducing unnecessary maneuvers and excessive dimpling.



PROTOTYPE SHOWN FOR PRESENTATION PURPOSES ONLY

STUDY DEATILS

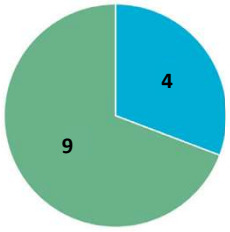
Participants: 13 retina specialists and trainees with varied experience levels.
Model: Fresh porcine eyeballs used within 48 hours post-euthanasia.
Preparation: Eyeballs optimized to standard intraocular pressure using saline injections.
Procedure: Each participant performed 4 suprachoroidal injections on separate eyeballs.
Assessment:
Injection success evaluated via gross dissection.
Fluorescent dye expansion in the suprachoroidal space used as qualitative marker.
Use of the device's advancement feature was also recorded.



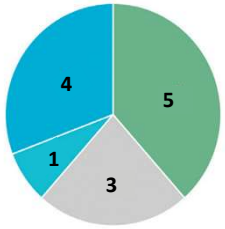
EARLY DIRECTIONAL STUDY RESULTS

Distribution of participants

Previous Suprachoroidal Injection Experience

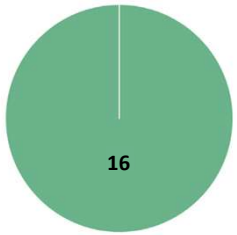


Breakdown of Participant's Experience



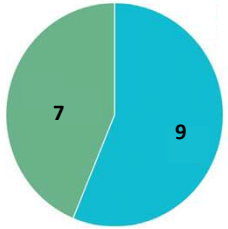
Success rate of suprachoroidal injection

Suprachroidal Experienced Participants



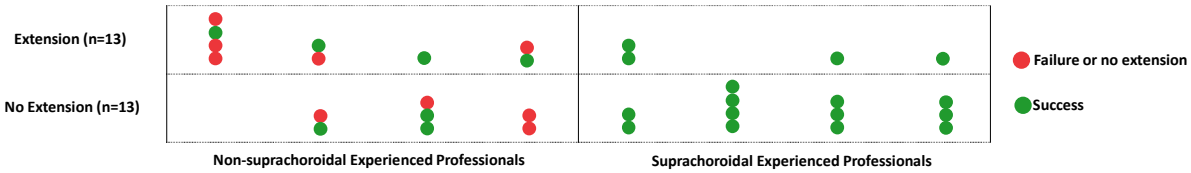
	Success	Failure
With Extension	4 (25%)	0 (0%)
Without Extension	12 (75%)	0 (0%)

Non-Suprachroidal Experienced Participants



	Success	Failure
With Extension	4 (57%)	5 (55%)
Without Extension	3 (43%)	4 (45%)

Breakdown of success rate with and without extension feature



RESULTS:

Experienced Participants:

- Achieved a **100% success rate**.
- **75%** of successful injections were done **without** the extension feature.
- **25%** used the extension feature, aligning with clinical needs for patients with thicker sclera (25–30%).

Inexperienced Participants:

- **Success rate dropped to 44%** after excluding fellows with <1 year retina experience.
- The **advancement feature** was used successfully in 57% of injections.
- **Extension feature** was more common in **failed injections**, mainly due to **insufficient injection pressure**.
- **4 failures** occurred **without extension**, likely due to **poor baseline pressure and dimpling technique.**

Suprachoroidal Advanceable Microneedle Device prototype and 0.5 mL prefilled syringe with surrogate drug product.
Prototype design not available for sale or approved for use in any jurisdiction.

The anticipated benefits:

- Single stick
- Faster injections
- Potential for reduced pain during injection
- Perpendicular access, which is easier to train and implement
- Potential to use the advancement feature to access the suprachoroidal space without rocking or twisting (maneuvers that may increase the risk of choroidal hemorrhage)
- Potential to use a prefilled syringe with accurate dose marking
- Standard plunger rod platform similar to the devices used for IVIs, which may have a distinct advantage for both surgeon preference and drug manufacturer adoption.

Depicted devices is a prototype and is not available for sale or human use.