



One Health
Student Conference
USAMV București



Subpalpebral Lavage System in Equine Ophthalmology: Clinical Applications and Case Outcomes

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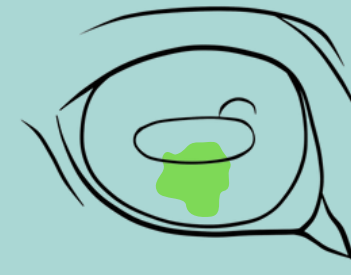
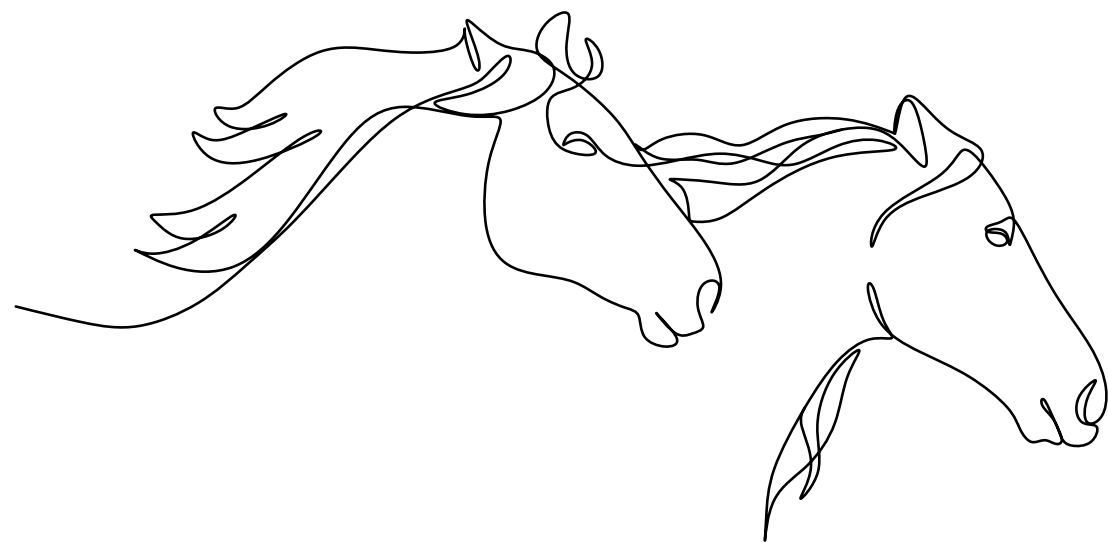


Background/ Why SPL Matters?

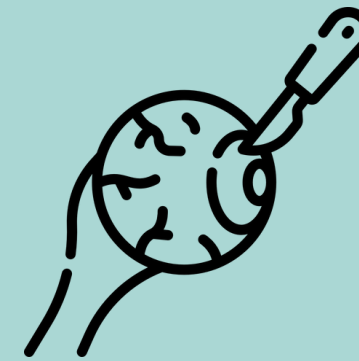
- Intensive topical ophthalmic therapy is often required in horses.;
- Manual administration is often impractical due to due to pain, strong palpebral reflexes, or poor compliance;
- Subpalpebral lavage (SPL) systems allow frequent and reliable medication delivery, it reduces handling stress and helps maintain therapeutic drug concentrations;
- Objective: to evaluate SPL use, tolerance, and clinical outcome in six equine cases.

Indications for SPL

- Need for sustained, reliable drug delivery (corneal ulcers may require medication every 1-2 hours);
- Ensuring accurate dosing in postoperative treatment plans (corneoconjunctival flap surgery, cataract surgery, diode laser ablation of iris tumors);
- Minimizing stress and handling frequency.



Severe Corneal Ulcers



Postoperative management

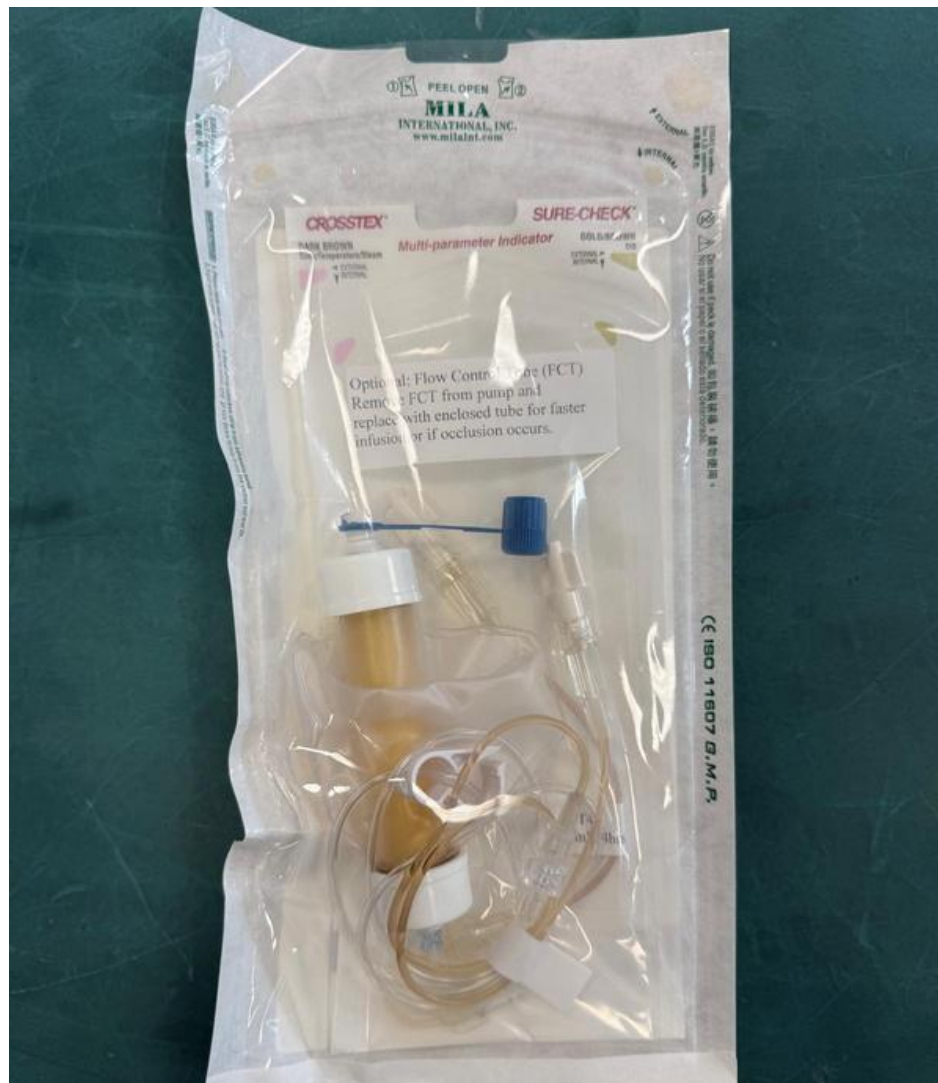


Poor patient compliance



Materials and Methods

SPL system: MILA International



- A commercially available subpalpebral lavage (SPL) system (MILA International, USA) was used in all cases;
- Prior to SPL placement, each horse was calmly restrained to minimize stress and facilitate safe handling;
- An auriculopalpebral nerve block with 2% lidocaine was administered to suppress eyelid movement and allow precise catheter positioning;

Sedation + auriculopalpebral nerve block



Materials and Technique

Placement



- The SPL catheter was inserted into the dorsal conjunctival fornix and advanced gently to avoid corneal contact;
- The external tubing was exteriorized through the skin and secured using non-absorbable sutures to maintain stable positioning;
- A Luer-lock extension line was connected and secured onto a wooden tongue depressor to provide a stable external anchoring surface to ensure controlled drug administration without disturbing the eye .

Fixation

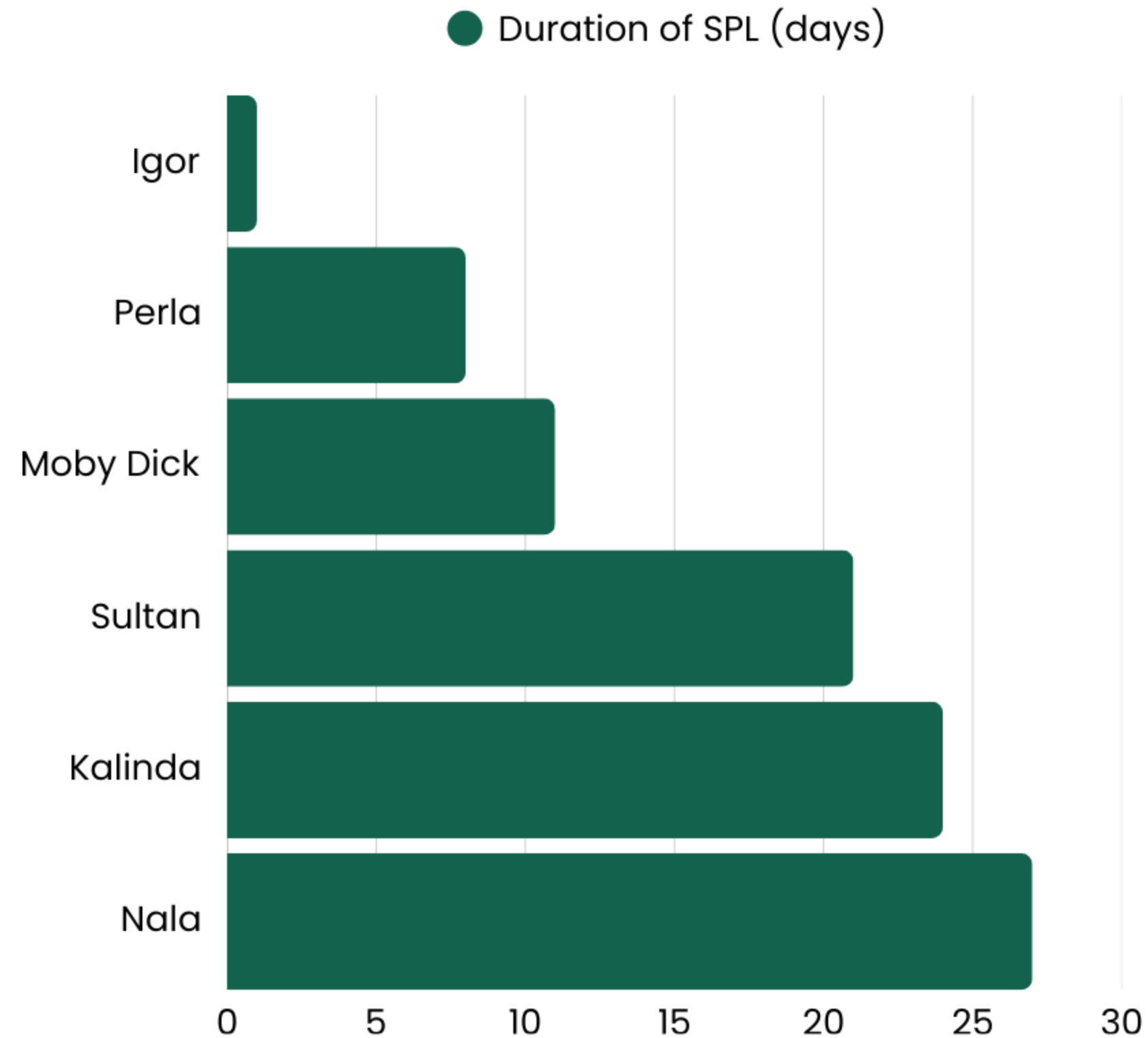


Patient Summary

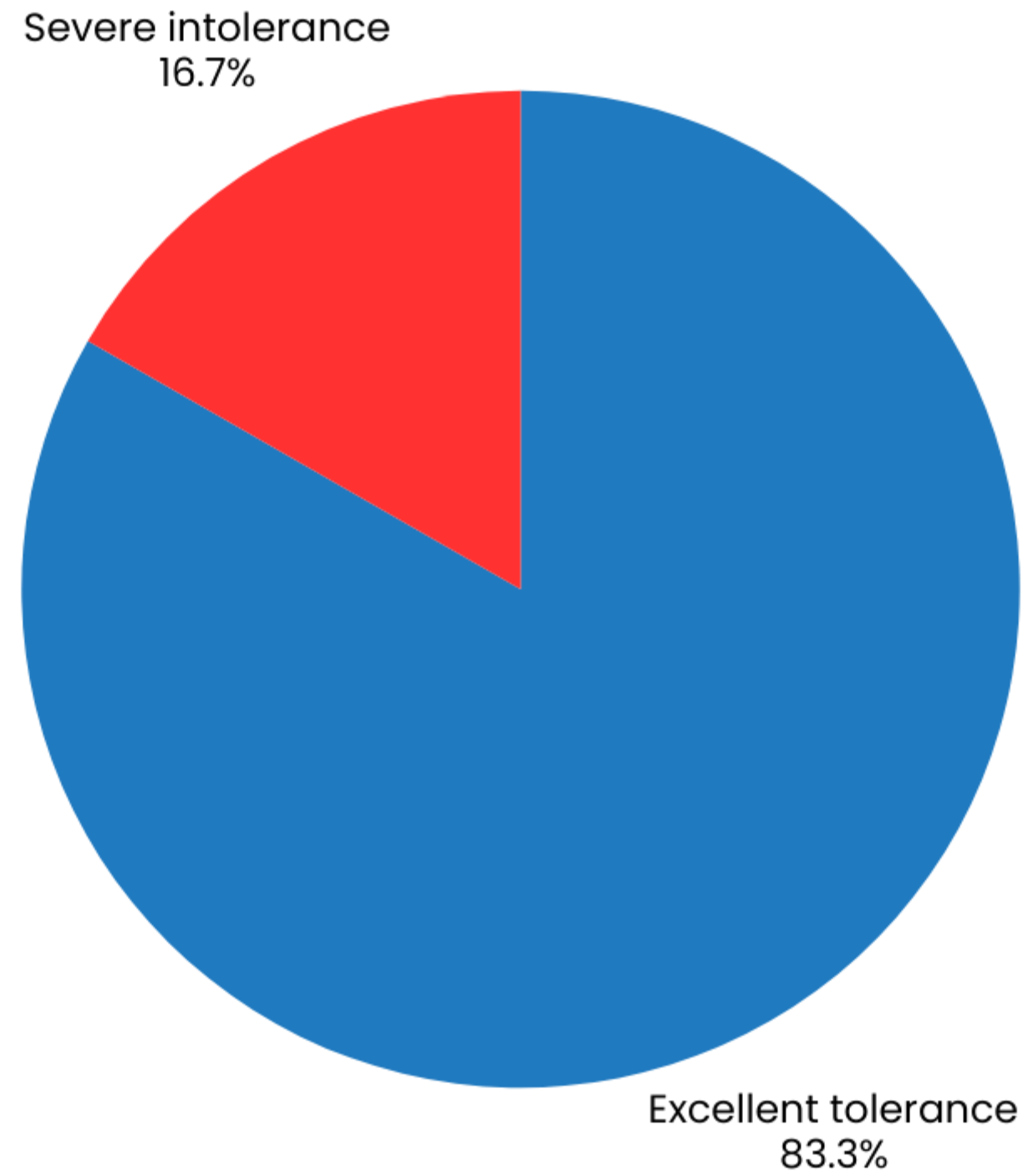
No	Age/Sex	Breed	Patient Name	Affected Eye	Diagnosis	Surgical Intervention	Duration of SPL
1	16 years Mare	Friesian	Kalinda	OD	Descemetocoele + secondary uveitis	Corneoconjunctival flap	24 days (Apr 4–28, 2023)
2	10 years Stallion	Friesian	Sultan	OS	Melting corneal ulcer	—	21 days (Nov 23–Dec 14, 2023)
3	12 years Stallion	Friesian	Igor	OS	Melting corneal ulcer + secondary uveitis	—	1 day (Feb 13–14, 2024)
4	3 months Filly	Purebred Arabian	Nala	OU	Congenital cataracts	Phacofragmentation phacoemulsification	27 days (Mar 28–Apr 24, 2024)
5	4 years Mare	Lusitano	Perla	OS	Iris melanoma	Diode laser ablation	8 days (Sept 19–27, 2024)
6	13 years Stallion	Sport Horse	Moby Dick	OD	Melting corneal ulcer + secondary uveitis	—	11 days (Jul 22–Aug 2, 2024)



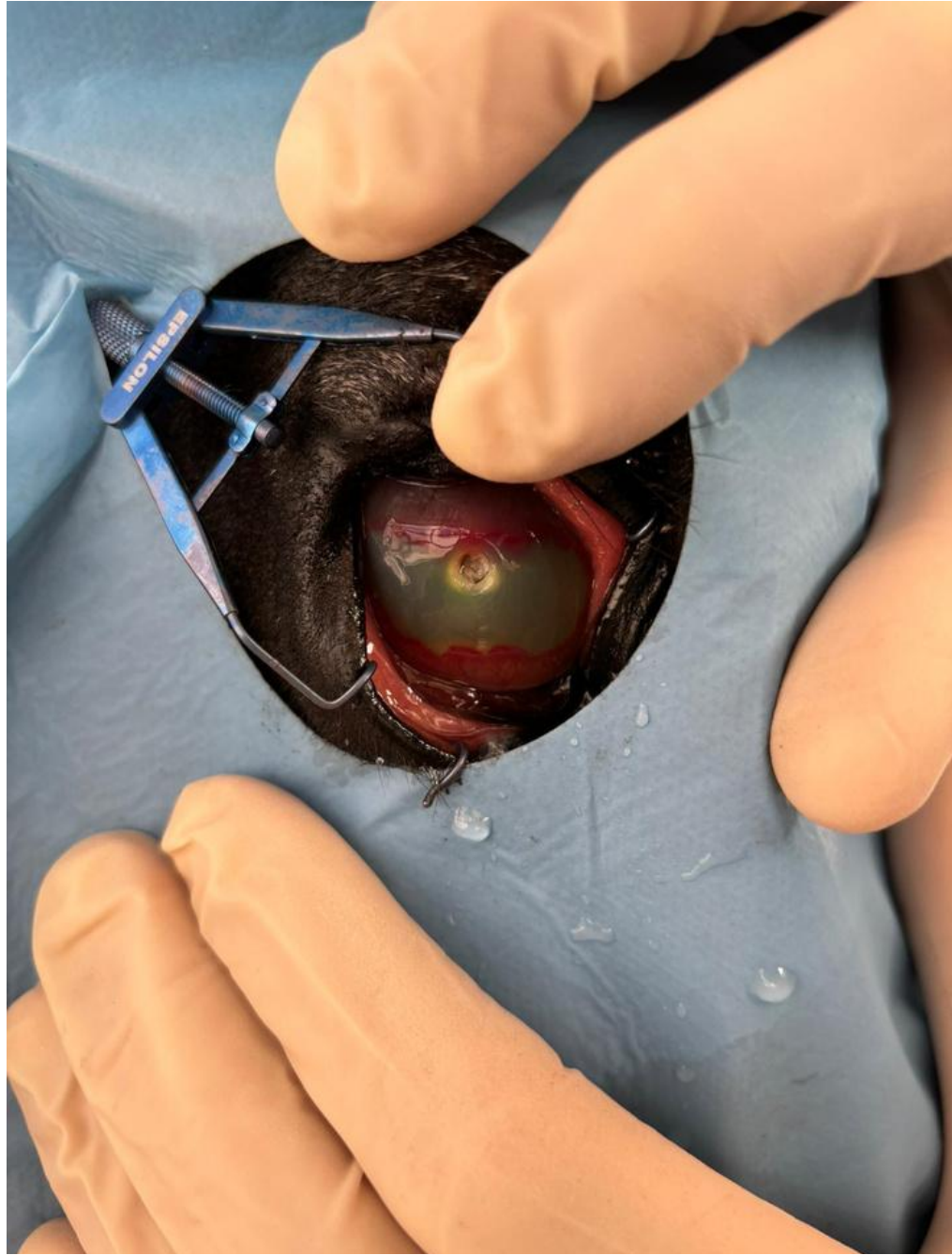
Duration of SPL use



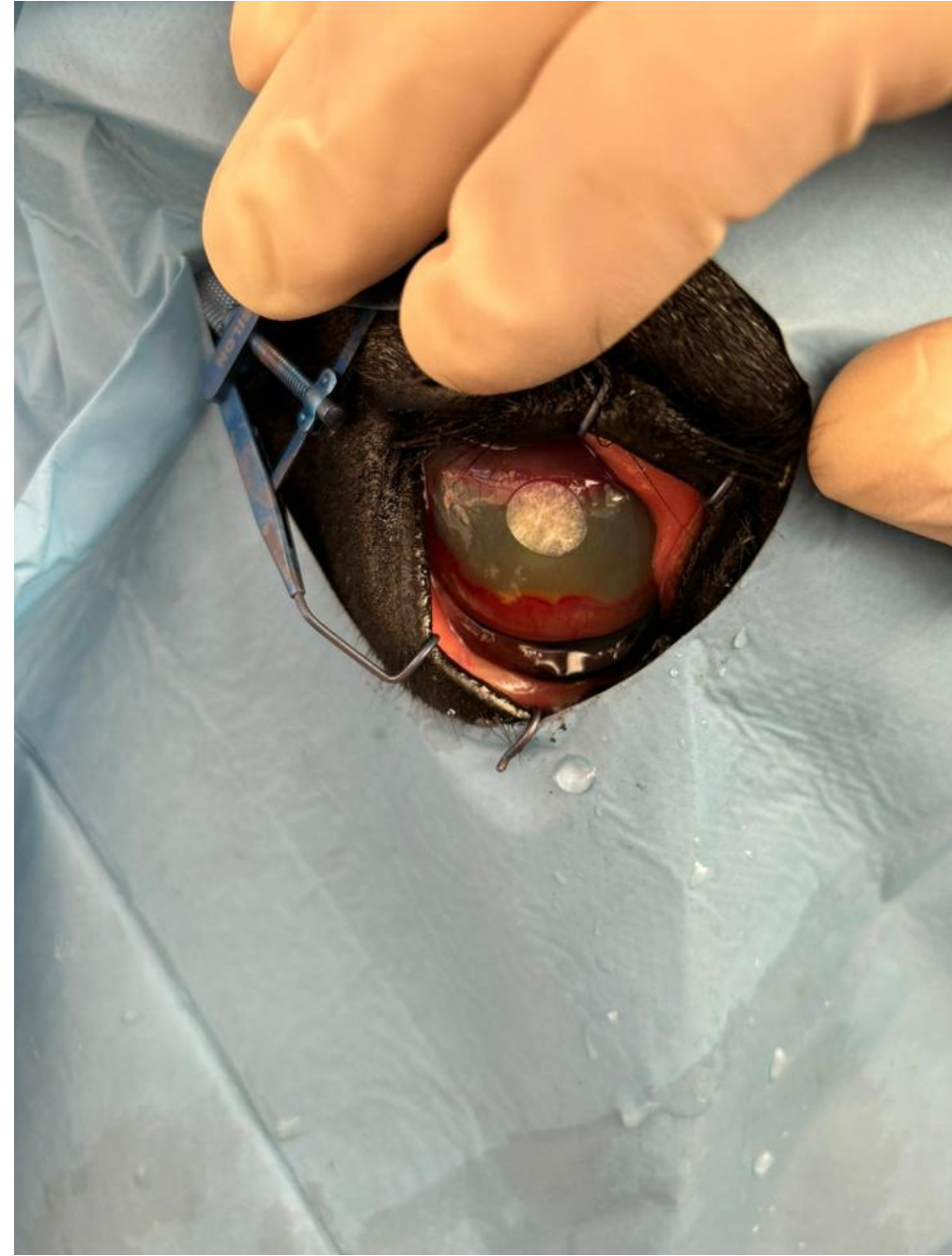
SPL Tolerance



Clinical images



Day 0



Day 60

Advantages and limitations

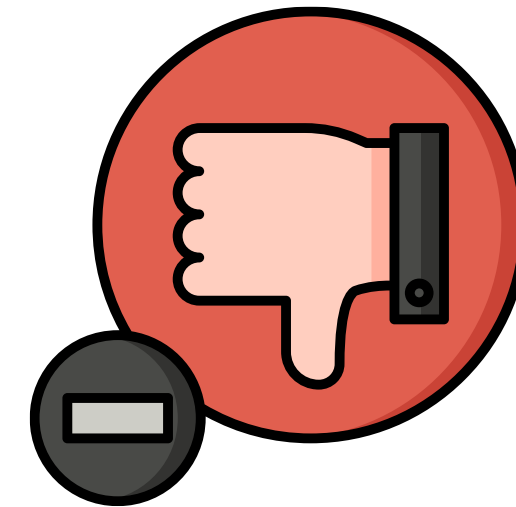


Reduces handling stress

Ensures high-frequency treatment and accurate drug dosing

Improves postoperative management

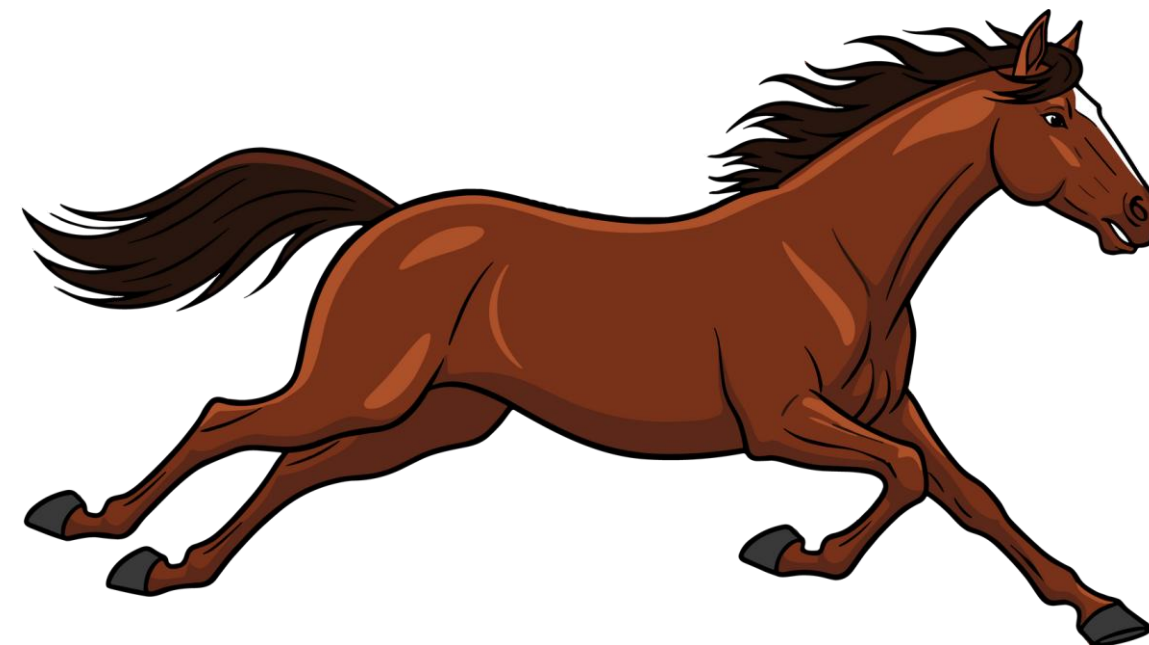
Safe and well tolerated (overall)



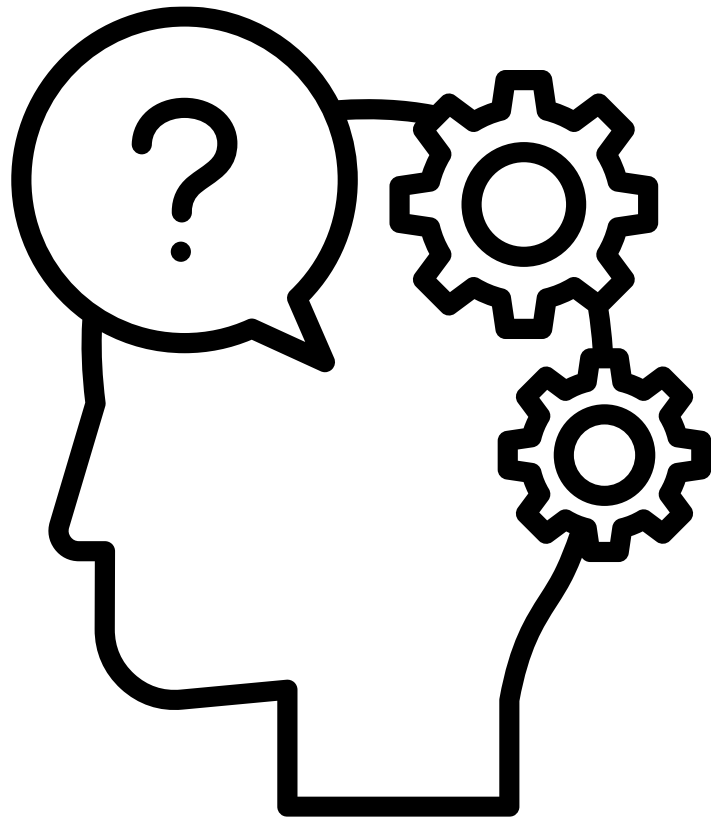
Small sample size

Heterogeneous diagnoses

Behavioral intolerance



Conclusions



SPL is effective and reliable in equine ophthalmic therapy

Particularly valuable for severe corneal disease and postoperative care

Should be considered a first-choice tool in cases requiring intensive treatment

Thank you!



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