**Background and Significance**
Rectal prolapses occur frequently in mice used for biomedical research. Little information is available on standardized methods for assessment or successful treatments, thus many cases result in euthanasia.

**Goals**
Determine the efficacy of treating rectal prolapses with an injectable NSAID versus other common topical treatment regimens.

Determine if factors such as tissue health, size, and co-morbidities could be kept stable in order to get animals to their desired end-points without requiring premature euthanasia.

**Materials and Methods**
Animals were distributed into four treatment groups:
1. 5 days of meloxicam (2 mg/kg SC) with daily topical triple antibiotic ointment (TAB)
2. Daily TAB with dexamethasone
3. Daily TAB alone
4. Daily application of sterile lube

Once enrolled, all treatment groups were evaluated on: day 0, 7 and 28.

A novel scoring system was used to assess tissue health (scored 1-5).

Tissue protrusion and diameter were recorded.

**Regulatory Considerations**
All treatments were managed under veterinary care and treatments were performed as a veterinary treatment. Thus, all mice enrolled in the study were kept on the investigators IACUC protocol maintaining the mice within their active research study during the therapy trial. Researchers were able to use the animals as intended in their protocol throughout the treatment since the animals were kept in their home cage and regular housing room.

**Additional Demographics**
In addition to tissue health and size, information was gathered to help determine potential causes of the prolapses and the factors they may play in prolapse progression.

These factors included:
- Strain
- Gender
- Housing Conditions
- Origin – whether bred in-house or from vendor
- Use in GI related study or not
- Previous manipulations/medication administration
- Date of last cage change
- History of recent cage flooding

**Results Continued**
Conclusions

- No treatment option consistently decreased the severity or led to resolution of rectal prolapses at 7 or 28 days.
- The primary factor found most useful for clinical assessment was mucosal tissue health.
- Overall, size of the prolapsed tissue did not correlate with deterioration of the animal’s condition.
- No trends were identified in demographic data to help anticipate spontaneous rectal prolapse.

Our results suggest that daily application of sterile lube was just as effective as other treatments to maintain tissue health and may be the most reasonable approach to maintaining rectal prolapses in mice.

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