
Recommendations to Prevent Hindlimb Paralysis in Large Animals

Hindlimb Paralysis may occur in the cannulated leg when the animal's mean blood pressure value is lower than 60 mmHg for an extended period of time during the surgical procedure. Signs of hindlimb paralysis typically include either a reduced or complete loss of mobility in the cannulated leg and may also include:

- Curled toes
- Skin that is cold to the touch
- Swelling
- Edema
- Redness
- Black or necrotic looking tissue as the post-operative period increases

Once this condition occurs, there is typically no treatment that can offer relief or reverse it. Prevention is critical. Tips to aid in prevention are:

- Ensure the cannulated leg is not secured too tightly to the table during the procedure.
- Insert the blood pressure catheter or sensor last, after the device and any biopotential leads have been placed.
- Administer Phenylephrine during the surgical procedure.

Phenylephrine will increase blood pressure while not increasing the heart rate. The preferred dosage is as follows:

1. Dilute 25 mg of Phenylephrine into a 250 ml sterile bag of Saline or D5W solution.
2. Start an IV drip of 1 drop per second.
3. Once the blood pressure has risen, decrease the volume to 4-6 drops per minute (0.5-1.0 $\mu\text{g}/\text{kg}$) to maintain the pressure value throughout the surgical procedure.¹

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