

VETS6304 Livestock Practice A

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General

Anaesthesia

Premedication

Agents

- α_2 agonist – **xylazine 2%** **0.02-0.04 mg / kg**: sedation + analgesia
- **NDMA Antagonist** – **ketamine**: sedation
- **Opioid** – **butorphanol**: sedation + analgesia

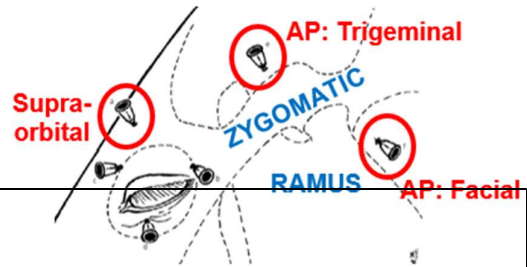
Route

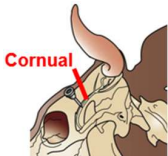
- **IV** – coccygeal, jugular
- **IM** – deep neck, gluteal, semimembranosus / semitendinosus

Local Anaesthetics

Lignocaine 2% toxic dose = 10 mg / kg

Head



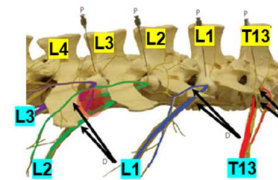
Immobilisation of the Eyelid	<ul style="list-style-type: none"> • Auriculopalpebral branches • Blocks <ul style="list-style-type: none"> ❖ Trigeminal n. (V) – upper eyelid: zygomatic arch ❖ Facial n. (VII) – lower eyelid: depression caudal to the ramus
Desensitisation of the Eyelid Stitching	<ul style="list-style-type: none"> • Upper Eyelid <ul style="list-style-type: none"> ❖ <i>Supraorbital n.</i> – medial 2/3 ❖ <i>Lacrimal n.</i> – lateral 1/3 ❖ <i>Infratrochlear n.</i> – nictitans and medial canthus • Lower Eyelid – <i>zygomatic n.</i> • Blocks <ul style="list-style-type: none"> ❖ Point – supraorbital n.: supraorbital foramen ❖ Line – multiple sites 0.5cm apart 0.5cm from the lid margin
Desensitisation of the Globe Enucleation	<ul style="list-style-type: none"> • Oculomotor (III) + trochlear (IV) + trigeminal (V) + abducent (VI) • Blocks <ul style="list-style-type: none"> ❖ Single – along the orbital wall ❖ 4-Point – 3 + 6 + 9 + 12 o'clock } Proptosis
Desensitisation of the Horns Dehorning	<ul style="list-style-type: none"> • Cornual n. (V) <ul style="list-style-type: none"> ❖ 3-5cm cranial ❖ Insert close to the frontal bone • Alternative – infiltration 

Flank

Paravertebral

Proximal

- D + V **nerve roots** at the **intervertebral foramina**
- Cranial L1 (T13) + cranial L2 (L1) + cranial L3 (L2) ± caudal L4 (L3)
- ± 5cm lateral to the dorsal midline → 'walk off' the transverse process → twitch: dorsal → intertransverse ligament → no resistance: ventral → whilst withdrawing
- Evaluation
 - ❖ Advantages – success = skin warming
 - ❖ Disadvantages – blood v., fat, scoliosis

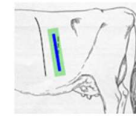


Distal

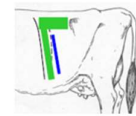
- D + V **rami** at the distal **transverse processes**
- L1 (T13) + L2 (L1) + L3 / L4 (L2)
- ± 5cm medially to the tip → dorsally: dorsal → ventrally: ventral → whilst withdrawing
- Evaluation
 - ❖ Advantages – consistent, easier, success = skin warming
 - ❖ Disadvantages – > volume

Infiltration

- Desensitises the skin, subcutaneous, muscles and peritoneum
- Evaluation
 - ❖ Advantages – easier
 - ❖ Disadvantages – > volume, > injections, incomplete



Line



Inverted-L

Epidural

- Options
 - ❖ Sacrococcygeal (**S5-Co1**) – high caudal
 - ❖ Coccygeal (**Co1-Co2**) – low caudal
- 'Hanging drop' confirmation

Antimicrobials

Antibiotic, dose, no residues and no promoting resistance

Considerations

- **DDx** – VITAMIN D
- **Site of Infection**
- **Pathogenesis**
 - ❖ Bacteraemia – bactericidal vs bacteriostatic
 - ❖ Toxaemia – cytotoxins, endotoxins, enterotoxins
- **Mechanism of Action** – cell wall, DNA, protein synthesis
- **P_D** – dose-dependent = MIC, time-dependent = cure
- **P_K** – metabolism = increased in neonates, excretion = hepatobiliary vs renal
- **Other** – withholds, prognosis, duration, cost

Drugs

Aminoglycosides	<ul style="list-style-type: none"> • Neomycin – respiratory, metritis • ~2 Year WHP: localises in the kidneys
Amphenicols	<ul style="list-style-type: none"> • Florfenicol • Pink eye, footrot, BRD
β-Lactams	<ul style="list-style-type: none"> • Amoxil • 2° bacterial, prophylactic, local, systemic, alimentary, respiratory, UT
Penicillin	<ul style="list-style-type: none"> • Wounds, metritis, footrot • Long acting formulations don't achieve therapeutic concentrations • β-Lactamase Resistant <ul style="list-style-type: none"> ❖ Cloxacillin – ocular, intramammary ❖ Amoxiclav – intramammary