**IV Regional Block**

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| Purpose/Aim | * Blocking of limb to provide local analgesia to area below tourniquet * Used for surgery on the foot such as amputation of a digit, tumor removal |  |  |
| Advantages | * Possible to perform surgery on a standing animal, reduce risks associated with general anesthesia, no need for anesthesiologist * Use of local anesthesia reduces volume of general anaesthetics, if used Low risk of infection * Rapid effect of analgesia * Simple technique * No complex equipment required |  |  |
| Drugs | 2% Lidocaine  Also possible - Bupivacaine, Mepivacaine | 5 - 10 ccs | Used 10 ccs lidocaine in cow #138, weighing ~ 400 kg |
| Landmarks | Forelimb: | * Dorsal metacarpal vein * Palmar digital vein * Dorsal digital vein |  |
|  | Hindlimb: | * Lateral saphenous vein, cranial or lateral branches * Lateral plantar vein * Lateral plantar digital vein |  |
| Procedure/Technique | 1. Adequately restrain animal. 2. Apply tourniquet proximal to carpus/tarsus. Allow a few minutes for vein to engorge 3. Clean and shave the area to be injected 4. Insert a butterfly catheter into the vein, and then inject 5-10 ccs of lidocaine with syringe. 5. Exsanguination is sometimes done at this step before injection of anaesthetic. 6. Remove needle, apply pressure immediately and massage to prevent haematoma 7. Wait 10 - 15 minutes for drug to take effect 8. Leave tourniquet in place for maximum 90 minutes to maintain effect of anaesthesia |  |  |
| Complications | * Cardiac arrhythmia or cardiac arrest due to injection of lidocaine in vein with inadequate tourniquet * Failure of effect - due to failure of tourniquet [too loose] or insufficient time * Haematoma at site of insertion of catheter/injection * Further local analgesia may be required to completely anaesthetize the area between the digits |  | Special consideration was taken not to exceed half of the toxic dose in cattle across all 5 procedures performed. |