# Bovine Lameness

## Foot and Claw Surgery

## Sedation

Sedate animal with xylazine 0.05 – 0.1 mg/kg and ketamine at 0.02 mg/kg.

## Intravenous Regional Local Anaesthesia – Bier's Block

• In this technique, a limb vein is catheterized.

• The limb is then exsanguinated (Esmarchs bandage), and a tourniquet placed around the limb, at a pressure adequate to prevent arterial circulation (> 150 mmHg).

• Local anaesthetic (preferably without epinephrine) is then injected into the vein. (10 ml 2% lidocaine)

• After a period of 15 minutes the area distal to the tourniquet is anesthetized until the tourniquet is removed.

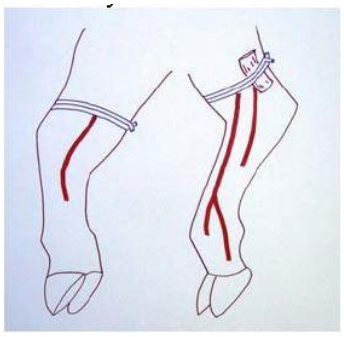

*Figure 7. Easily recognized veins of the distal parts of the limbs in cattle. (1) Medial view of the right fore-limb A, radial vein; B, medial palmar digital vein. (2) Lateral view of the right hind-limb: C, lateral branch of lateral saphenous vein; D, lateral plantar vein; E, lateral plantar digital vein.(From Hall et al. 2000)*

• Potential problems are:

o Difficulty in finding the vein once the limb is exsanguinated (this is why it's best to have a catheter in place first).

o Cardiac arrhythmias or even arrest. This is due to an inadequate tourniquet.

o Failure to take effect. Common reasons are inadequate tourniquet, inadequate time, and lack of exsanguination (it does work without exsanguination but not so well).

o Collapse when tourniquet is removed. This is because of anoxic waste products re-entering circulation. It is preferable if the animal is recumbent at this time.

o Damage as a result of the tourniquet being left on too long. This is rare. It can be left on for 1-1.5 hours on the limb of cattle and dogs.