|  |  |
| --- | --- |
| Digit/Claw Amputation | |
| Relevant Anatomy | Proximal phalanx  Middle phalanx |
| Site Preparation | Scrub with soap and water  Wash  Hair clipping if necessary |
| Restraint | Crush |
| Equipment/Materials | Gigli wire  Scalpel handle and blade  Needle  Hypodermic needle  Chosen local anaesthetic  Suture material/nylon  Forceps |
| Anaesthesia | Intravenous regional anaesthesia |
| Why is it necessary? | * Provides pain relief * Improves welfare * Improves production * Restore normal gait * Prevent ascending infection from conditions such as septic arthritis of the distal interphalangeal joint/ sepsis. * Prevent spread of infection to adjacent structures. * Return animal(s) to optimal levels of productivity. |
| When is it done? | When there is a:   * Penetrating injury to the hoof. * Deep infection of the foot. * Fractures/ dislocations. * Chronic lesions that have failed to respond to conventional treatment such as:   -foul, and non-healing white line lesions  -toe necrosis etc, where secondary digital dermatitis infection is involved. |
| Approaches | Low Digit Amputation  High Digit Amputation |
| Procedure | Low Digit Amputation  This is performed when only the coffin joint and the distal phalanx are diseased. The amputation is directed through the middle phalanx.     1. A tourniquet is applied, and local anaesthetic is administered via IVRA. 2. The skin is incised above the coronary band and between the interdigital space and around the heel. All incisions are connected. 3. The pastern joint is palpated. 4. The Gigli wire is placed around the proximal third of the middle phalanx just below the pastern joint and held behind. 5. With the Gigli wire held tightly in hand, strong rapid strokes are made. This generates heat, which acts as a cauterizer, cauterizing the blood vessels. 6. The wound edges are assessed, and any diseased tissues are cut away/debrided. 7. The flaps of skin are suture together and a bandage is applied.   High Digit Amputation  Procedure is the same as Low Digit Amputation however, the amputation is directed through the distal third of the proximal phalanx.  This indicates that there is disease involved with the coffin joint, pastern joint, distal phalanx, and the middle phalanx. |
| Animal Welfare | Digit/Claw Amputation is a very painful procedure; therefore, anaesthesia and pain will be controlled during the procedure. |
| Advantages | Any potential spread of infection has been removed.  Disease is removed from region of infection. |
| Disadvantages | Cows with a higher weight have a poor prognosis  Ascending tendonitis  Reduced milk production in dairy cattle 60 days post-op  Possibility of an infection of the remaining digit. |