Castration

Is the removal of the testicles to make the animals neuter.

Indications:
Bull:
• To make the animal docile.
• For easy management.
• To prevent unwanted animals from breeding.
• To promote weight gain in beef animals.

Horse:
To make the animal docile.
For easy management in the presence of mare.
In presence of malignant disease / irreparable injury.
Correction of scrotal hernia.

Pig:
To promote quick weight gain.

Ram and buck:
To make the animal docile
Promote weight gain
Prevent unwanted animals from breeding.

Dog:
Prevent breeding nuisance
Neoplasm of testicles
Make the animals docile.
Perineal hernia and enlarged prostate.

Tom:
• To avoid fighting tendency.
• Avoid breeding nuisance.
• To reduce the pungent smell of urine.

Anatomy of scrotum:

Methods of castration;
There are two methods of performing the operation.
Castration

Closed method

Open method

Open-open method  open covered method

**Closed method/Burdizzo method:**

Anaesthesia and control:
Normally no anaesthesia is required for this method of castration, animal is controlled on lateral recumbence with the head and limbs restrained properly.

Procedure:
- This is the most frequently used method of castration in bull, Ram and buck.
- Grasp the scrotum pull down the testicles, push the spermatic chord outward and tense it against the skin.
- Open the jaws of the burdizzo castrator and place it over the tensed spermatic chord
- Crush the spermatic chord by applying force over the limbs of the castrator. (when the chord is crushed a ‘crushing sound can be heard) wait for a few minutes before the spermatic chord is released
- Hold the spermatic chord in the same position and move the castrator to new site, about one inch up or down according to the need and crush it again
- Push the testicles up and down to prevent adhesion of the scrotal sac and the internal structures
- Apply Tr. Iodine over the crushed spermatic chord
- Repeat the same procedure on to the other spermatic chord. (remember that the crush mark in the two spermatic chords should not be in the same line)

Note: see the figures given below:

Open method:
Note: open-closed method of castration is done for the correction of the scrotal hernia, which is common in horses. For the routine practice open-open method of castration is performed.

Open-open method:
This method of castration is employed in horse, pig, dog and cat

Anaesthesia and control:

Local infiltration at the site and intratesticular (sedation may be required for animals that are ferocious and excited) lateral or dorsal recumbence

Technique:
1. Mid line incision on the median raphe to take out both testicles through the same opening
2. Longitudinal incision parallel to the median raphe on each sides to take out individual testicle
3. Longitudinal incision parallel to median raphe on one side to take out the testicles on that side and extraction of the other testicle through the same incision

Preparation of site:
- Wash the area with plenty of water and soap
- Shave the area and rewash it water
- Paint the area with Tr. Iodine

Procedure:
- Tense the testicles against the scrotal skin
- Place bold skin incision on the site selected
- Incise through the Tunica vaginalis while pressure is applied from beneath with the other hand (press until the testicle pops out on to the surface)
- Separate the spermatic chord into vascular and avascular bundle
- Apply ligature onto the vascular bundle and transfix it onto the avascular bundle
- Separate the vascular and avascular bundles distal to the ligature
- Mop the stump of the spermatic chord and apply Tr. Benzoin
- Repeat the same procedure on the other testicle
- Skin wound can be left open, if sutured leave enough space for the drainage of fluid
Post operative care:
- Clean the skin wound apply Tr. Benzoin/Tr. Iodine
- Give a dose of long acting antibiotic viz. Benzathne Penicillin/oxytetracycline-LA
- Give a dose of pain killer
- ** A dose of tetanus toxoid should be given immediately after the operation in the case of horse as they are susceptible to tetanus