

## **SPECIAL GYNECOLOGICAL TECHNIQUES**

1. Intra-uterine infusion .
2. Uterine lavage .
3. Vaginal douches .
4. Insertion of synchronization materials .

### **1 - Intra-uterine infusion .**

➤ **Aim :**

- Irrigation of uterus using disinfectant solution .
- Infusion of antibiotics after mating to improve conception rate .
- Overcome post-coital infection in susceptible mare after covering & improve intra-uterine for implantation .

➤ **Technique :**

**☒ In Bovine & Ovine :**

- We use rectovaginal technique .
- Using metallic catheter sterile by alcohol and firing .
- Then insert catheter first upward (to avoid suburethral diverticulum & external urethral orifice ) then direct it forward .
- The other hand on rectum catch cervix and close fornix .
- Direct the catheter forward toward external cervical oss and direct it pass through annular fold till tips of catheter palpated inside uterine body .
- Then make infusion by antibodies , disinfectant or immuno-normalizaation .

**☒ In mare :**

- We use vaginal technique
- Using rubber catheter within gloved hand per vagina till pass it through cervix.

 **Antibiotics :**

- Antibiotics acts locally and not leave any residue in milk.

➤ **Aim:**

1. Repeat breeder
2. Subacute or chronic endometritis .
3. Improve fertility after mating

➤ **As :**

- { Penicillin ( 0.5 – 1 × 10<sup>6</sup> I.U ) + streptomycin ( 0.5 – 1 gm ) } given in any time except post parturation due to high penicillinase enzyme produced from this type of this bacteria .
- Vetrocine , streptopenicide , vetbiotic , stropenject ....etc .
- Oxytetracycline ( 0.5 – 1 gm )
- Chloramphenicole ( 0.5 – 1 gm )
- Cephalosporine ( 0.5 – 1 gm )

**Disinfectants ( Antiseptics ) :**

➤ **Uses :**

- Treatment of endometritis .
  - It is contraindicated used in pyometra , postparturant period or vaginitis because uterus or vagina is severely damaged & to avoid shock .

➤ **As :**

1. Lugol's solution .
2. Lotagen 2-3%
3. Betadine 2-3%
4. Acrifalvin
5. Pot.permanganate 1/1000: must be freshly prepared



less irritant than lugol's

**Note that :**

- In mare we mainly use Pot.permanganate 1/1000 , acriflavin or betadine 1%
- The amount of disinfectant solution must be related to the size of uterus to prevent passing of disinfectant to abdominal cavity

In heifer : 20 – 30 ml

In mature cow : 40 – 50 ml

**Immune-normalization :**

- By intra-uterine infusion of certain certain sub. Or solution which aid in raising the intra-uterine immunity .

➤ **As :**

1. E . Coli lipopolyscharride : dissolved in 50 ml phosphate buffer .
2. Oyster-glycoge : dissolved in 50 ml phosphate buffer .
3. Levamizole : used for 3 successive days and stop for 4 days
4. (repeated for 3 times )
5. Autogenous plasma or serum : Use 50 ml of its own plasma or serum .

## **2 - Uterine lavage**

➤ **Apparatus consists of :**

1. Gravity instillation bottle .
2. Rubber catheter .
3. Cuff .

➤ **Uses :**

1. Post parturient cases .
2. Opened pyometra .
3. After retained placenta .
4. For clearance of uterus from any abnormal content .
5. Uterine lavage



➤ **Technique :**

- Gravity instillation bottle contain worm solution (isotonic solution) at 40 °c as saline , sod.bicarbonate 1 – 2 % .
- Insert rubber tube per vagina till reach cervix and pass it .
- Cuff filled by air which lead to close cervix then raise the gravity instillation bottle .
- Rectal massage for uterus to allow well distribution of isotonic solution .
- Uterine lavage repeated till vaginal discharge is clear .
- Uterine lavage may be accompanied by oxytocin injection (20 – 40 I.U) to increase uterine contraction .

## **3 - Vaginal douches**

- It is useful in flushing out the mucopurulent exudate ( as in vaginitis & pyometra ) and stimulate circulation in vagina , cervix .

➤ **We use :**

1. Saline
2. Sod.bicarbonate 1%
3. Betadine 1%
4. Acriflavin
5. Pot.permanganate

➤ **Technique :**

- By using enema or plastic syringe (without needle )
- It repeated for 3 – 4 days till removal of all mucopurulent discharge .

## **4 - Insertion of synchronization materials**

➤ **Materials :**

1. Progestron Releasing Intravaginal Device (PRID)
2. Controlled Internal Drug Releasing device (CIDR)
3. Vaginal sponge .

- The previous devices contain progesteron which release by certain amount daily till removing of synchronization material .

➤ **Principle :**

- Elongation of luteal phase .
- Shorting of luteal phase .

➤ **Technique :**

- Insertion of synchronization material by vaginoscope
- After insertion the device we remove vaginoscope from vagina
- The synchronization material remain in vagina for certain period according to spp. Till removing its free end.