

Clinical Examination of Female

Clinical examination :

- It is performed by means of senses (sight , touch , hearing & smelling) .
- It composed of :
 - » Visual inspection (scopes & ultrasonography)
 - » Physical examination (palpation)

Aim of clinical examination :

- Make diagnosis .
- Giving a prognosis .
- Selection of appropriate treatment .

Objectives of clinical examination :

- To recognize disease .
- To diagnose venereal disease .
- To detect fertility (pregnancy state)
- To identify genetic defects .

General Examination:

1. Case history :

- Complain of owner :
- Anestrous , repeat breeder .
- Abnormal vaginal discharge .
- Abnormal duration of estrous behavior .
- Animal identification :
- Age , species , breeder , pregnancy state .
- History (if female born co-twins with male) .
- Type of breeding (natural or AI) .
- Previous estrous cycle .
- Time of last breeding .
- Previous calving (date , difficulty , condition)
- Drop of placenta (retained or not)
- Nutritional condition .
- Production (amount of milk production & fat content)
- Previous medical treatment .

2. Inspection to detect clinical signs :

- Inspection use all human senses eg: vision , hearing ,touch , smell or by introducing speculum in vagina at evaluation .
- Inspection include :
 - physical condition , gait & external part of reproductive system .
 - General appearance of animal (good or dullness)
 - Situation of animal (standing or recumbent)
 - Animal response to surrounding environment .
 - Gait of animal (lameness , weakness or neurological defects)
 - **Body Condition Score :**
 - » By lateral view through ribs and tuber coxae .

» By back view from knuckle ligament , wither ,vertebra , tail .

0 → Emaciated

2 → Fair

4 → Very good

1 → Thin

3 → Good

5 → Obaise

- Angulation of vulva
- Degree of vulvar commesure closure
- Position of head & tail
- Presence of any abnormalities
- Size of vulva in relation to age of female

Good healthy condition → lead to or indicate good reproductive performance.

3. **Physical examination:**

Physical examination include :

- Temperature .
- Pulse rate .
- Respiration rate .

Precaution:

We must make secure of animal :

- For cow :
 - Tight the hind limb with forelimb
 - Grasp groin (skin fold anterior stifle joint)
 - Grasp nasal septum .
- For buffalo :
 - Press on it's back by strong stick
 - Light striking on it's horn.
- For mare :
 - Twisting ear of mare or it's nose

Gynecological examination

1. Inspection

We make inspection for 3 parameters :

- Vulva
- Udder
- Pelvic ligament

A. Vulva:

☒ Normal :

- It is external part of female genitalia which consider outer seal of female reproductive system .
- It is vertically situated & two lips opposite to each other and must have normal size related to body size .

☒ Abnormalities :

- Hypo plastic vulva :in heifer & free martin .
- Angulation of vulva : which may be oblique or horizontal lead to pneumovagina (wind sucking)
- Swollen :
 - With rosy red color : mean female in estrous
 - With congestion : mean inflammation .
- Tears & Laceration after excessive contraction during treatment of dystocia .

☒ Physiological secretion :

- **Estral mucous :**
 - Long strand of viscous transparent mucous hanging from vulva during estrous & soiling tail and hock region .
 - Under microscope take shape of arborization .



- **Cervical plug :**
 - It Is turbid mucous secreted from cervix and discharge from vulva of pregnant female indicate beginning of first stage of parturition .
- **Metrorrhagia :**
 - It is pink tinged discharge from vulva and soiling ventral commisure & hock region .
 - It appear 36 – 48 hrs. after end of estrous due to sharp decrease in estrogen (vasodilator) & increase progesterone (vasoconstrictor) leading to oozing blood from endometrium .
 - It occur in 80% of heifer & 20% of mature cow .
 - There is no relation bet. Conception and metrorrhagia .

- **Lochia :**
 - It is viscous grayish discharge from vulva after parturition .
 - Begin after 2nd day of parturition and continue for 5 – 7 days to complete closure of cervical canal .
 - Has no offensive odeur and contain remnant of fetal fluid , blood , placenta & degenerated endometrium .
 - Has 3 types :
 - Lochia sungoilenta : greyish red .
 - Lochia rubra : mucous .
 - Lochia alba : white color .

☒ ***pathological secretion :***

- **Mucopurulent discharge :**
 - Indicate vaginitis , cervitis , endometritis .
- **Purulent discharge :**
 - Indicate vaginitis , cervitis , endometritis , opened pyometra
- **Blood discharge:**
 - Grayish blood , offensive odeur , soiling tail and hock joint .
 - Indicate abortion .
- **Hanged part of placenta :**
 - Indicate retained placenta .

B. Udder :

It is only 4 teats attached to female abdomen in heifer .

☐ ***Physiological changes :***

- 1) After fertilization :
 - udder enlarged and become pendulous indicate heifer in early pregnancy about 4th – 5th months .
- 2) Before parturition :
 - udder become more pendulous with erected teats indicate nearing of parturition .
- 3) Erected teats in non – pregnant female :
 - Indicate female is in estrous

☐ ***Pathological changes :***

- 1) In acute mastitis : swollen , painful , red , mastitic milk .
- 2) In chronic mastitis : indurate .

C. Pelvic ligament :

There are 2 ligaments :

- Sacroiliac lig. :
Extend bet. Sacrum & body of ilium .
- Sacroischiatic lig:
Extend bet. Sacrum & ischiatic tubresity so may called (sacrotubiral lig.)

Pelvic lig. Are firm and dense except before parturition due to action of estrogen & relaxin hormones (lig. Become flappy to allow dilation of pelvic cavity)

Animal	State of ligaments
bovine	Palpated & seen by visual inspection
ovine	Palpated but not seen grossly .
equine	Not seen or palpated due to heavy gluteal muscle .

2. Palpation

Types :

- Abdominal palpation : in small animals .
- Rectal palpation : for internal genital organs .
- Vaginal palpation :
 - » It is obstetrical examination in bovine
 - » The most accurate and practical method for detect direction & degree of uterine torsion .

☒ Rectal palpation :

Aim :

- Pregnancy diagnosis .
- Diagnosis of certain infertility cases .

Important terms :

- **Fluctuant :**
 - Which is soft and elastic , undulant under pressure
 - As : mature graffian follicle & gravid horn
- **Firm :**
 - In normal organ consistancy
 - As : ovaries , CL. , cervix
- **Doughy :**
 - Soft and pit under pressure
 - As : in pyometra
- **Hard :**
 - Bone consistancy
 - As : corpus albicans .

Technique of rectal palpation:

- Secure the animal.
- Wearing long rubber sleeve, then lubricate the gloved hand with paraffin oil.
- Introduce gloved hand into rectum in cone-shape manner.
- Searching genitalia in pelvic floor using cervix as a guide, then examin the cervix.
- Caudal retraction of genitalia firstly from cervix then from inter-cornual ligament and make examination of uterus.
- Reach to the ovaries which lie lateral to uterine horn, catch ovary between middle and index finger and examined by thumb.

❖ **Rectal finding :****A. Cervix :**

- Position : caudal in pelvic floor in young heifer & extend cranially in mature cow reaching to pelvic rim .
- Size :
 - » Normal : length : 5 – 10 cm diameter : 3 – 4 cm or 2 – 3 finger .
 - » Abnormal : increased due to precervical abscess or inflammation .

B. Uterus :

- **Position** : in pelvic cavity and may extend cranially in mature cow .
- **Size & symmetry** : non-gravid horn are symmetrical in size (2-3 cm or 1-2 finger)
- **Movability** : normal free but if fixed indicate adhesion
- **Shape** :
 - » Normal : bicornuotated (like horn of ram that coiled ventrally , caudally & then laterally .
 - » Abnormal : uni cornis or elongated (sever endometritis)
- **Content & consistancy** :
 - » Non – gravid horn : fleshy (no content)
 - » Pyometra (pus) : doughy
 - » Mucometra , hydrometra (fluid) : fluctuant
 - » Macerated fetus : doughy but contain bone
 - » Mommified fetus : consistancy hard mass of fetus .
- **Wall of uterus** :
 - » Normally : thick in post partum period
 - » Thick wall : in pyometra
 - » Thin wall : in hydrometra ,mucometra (fluid)
- **Surface** :
 - » Normally during diestrous ,metestrous , proestrous uterus is smooth
 - » But during estrous is turgid with uneven surface (due to contraction of circular muscle)
 - » In endometritis : turgid with smooth surface .

C. Ovaries :

- Movability : free .
- Size : from huzzle nut in young heifer to pigeon egg in mature cow .
- Structures:

Structure	shape	consistency	diameter
M.G.F	Flactuant like blister slightly raised from surface of ovary without any demarkation .	fluctuated	1.5 – 2 cm
CH	Raised from surface of ovary with demarkation or neck .	mushy	2 cm
CL	Corn like structure (fungiform) raised from ovarian surfacewith demarkation or neck .	firm	2.5 – 3 cm
CA	Pointed raised structure	hard	Less than 2 cm

- Abnormalities :
 - » Aplasia
 - » Small size :
 - inactive ovaries .
 - hypoplasia .
 - » Large size :
 - Cystic ovary : diameter 2.5 – 8 cm
 - tumer

3. Vaginoscope

- **Aim :**
 1. Visualization for vagina and porchovaginalis .
 2. Examination of vagina and porchovaginalis .
 3. For certain case of infertility .
 4. For collection of vaginal swab (for bact. Examination) .
 5. Used with cervical technique with AI .
- **Sterilization :**
 - We use alcohol & cotton
 - We wash it and then fire cotton & firing the vaginoscope .
- **Technique :**
 - Sterilization vaginoscope by firing .
 - Lubricate vaginoscope by paraffin oil or vaslin .
 - Take two vulval lips apart and insert vaginoscope firstly upward (to avoid suburethral diverticulum & external urethral orifice)
 - Then direct it forward and turn vaginoscope and gradually open it to visualization , examination m.m and porchovaginalis .

- **Types :**

1. Metallic .
2. Glass prespex
3. Vaginal opener



- **Finding :**

- **Mucous membrane of vagina :**
 - Rosy red color : during estrous (normal)
 - Light red color : during diestrous
 - Pale m.m : at under feeding anestrus
 - Congested red m.m : in vaginitis
- **Cervical mucous :**
 - At estrous : clear & transparent .
 - At diestrous : dry mucous membrane
 - In vaginitis : turbid or pus on m.m .
- **Examination of :**
 - Acquired problems : as vaginitis , abscess or tumer .
 - Conginital problems : as double porchovaginalis or flesh piller .
- **Portiovaginalis:**
 - Opened: duning estrous.
 - Closed: during diestrous.

- Rose shape: inflammation