**Problems Of Pregnancy**

**1- Hydropsy fetal membrane**

Both the amniotic and allantoic sacs can contain excessive quantities of fetal fluid ; when this occurs it is referred to as hydramnios or hydrallantois, depending on which sac is involved. Hydrallantois is much more common than hydramnios, although the latter is always seen in association with specific fetal abnormalities such as the „bulldog‟ calf in the Dexter.

**Hydroallantois: or hydrops of the allantois**, is due to a defective placenta (the chorio-allantois).

• The fetus is normal.

• The condition is characterized by a rapid accumulation of watery, clear fluid, usually in the last trimester.

**Clinical signs** :

The cow is rounded in the caudal view, and you normally can't palpate the fetus or placentomes.

Usually the condition results in a sick cow with anorexia, decreased rumen motility, dehydration and weakness. The cow may be down. The placenta is thick. If the cow survives, postpartum metritis is common. The condition usually ends in death or intervention.

• The prognosis is guarded to poor for life and fertility.

• Treatment: consists of Caesarian section. Dexamethasone can be used if the cow is not down.

**Hydramnios: or hydrops amnios,** is due to a defective calf, usually attributed at least partly to a defect in swallowing. The placenta is normal.

The condition is characterized by a gradual accumulation of thick fluid during the last half of gestation.

**Clinical signs** :Usually you can palpate the fetus and placentomes. The cow is clinically otherwise unaffected. The pregnancy usually goes to term, and frequently a small, deformed fetus is delivered. Postpartum metritis is uncommon.

* The prognosis is good for life and fertility.
* No treatment is required.

**2- Superfecundation:**

Its occur without causing problem when offspring from more than one sire are conceived at the same estrus period. Its occur in dog and cat but may be occur also in cow. In sow the condition occur routinely.

**3- Superfetation:**

Its occur when an animal that is already pregnant and come to estrus, is served, and conceives a second litter. This occur in wild species such as the kangaroo and sow.

**4- Ectopic Pregnancy**:

The condition of fetal development outside the uterus. Its common in human. In this condition urgent surgery is necessary to terminate the problem.

There are two type of ectopic pregnancy which are :

A- **True ectopic pregnancy** :it occur when the embryo attach in the other uterine tissue (like omintum or oviduct etc.) and continuous in the development .this condition are more common in human when the embryo development in the oviduct ,and it will led to tearing of the oviduct and cause severe bleeding ,it also may occur in the animals.

B- **Secondary ectopic pregnancy** :this case occur when the embryo are normally developed in the uterus and then escape outside of uterus like in peritoneal cavity or vagina with many reason like uterine torsion or uterine rupture .

**5- Twin:**

the animals are divided into monotocous (that animals which often bearing one fetus in each pregnancy like mare and cow) and polytocous (that animals which bearing more than one fetus in each pregnancy like goat ,pig ,cat and bitch).

In the monotocous animals the twin may combined with many complication such as abortion , premature birth and dystocia ,therefore the twin consider a problem in this animals (specially in mare ).

**6- Embryonic death**:

Termination of pregnancy may occur at varies stage :

1- Before maternal recognition of pregnancy (before 14 days of gestation in cow), in which case the length of cycle is not affected (early embryonic death).

The early embryonic death consider the main causes of repeat breeder in cattle

2- After maternal recognition of pregnancy and is associated with a delay in the length of the cycle (late embryonic death).(this time between 14 days of gestation to 45days)

3- During the fetal stage (after 45days of gestation) is called fetal death.

**Causes** :

- Genetics factors

- Infection

- Immunological

- Environmental

- Chromosomal aberration

- Nutrition

- Endocrine imbalance

**7- Abortion**

Abortion: expulsion of dead conceptus or a living one incapable of life.

Premature delivery: preterm birth of immature viable fetus.

Stillbirth: dead fetus expelled at term.

Abortion in dairy cattle is commonly defined as a loss of the fetus between the age of 45 days and approximately 260 days.

Abortion is usually caused by agents affecting the fetus, fetal membrane or endometerium.

Common Causes of Abortion

1- Infectious causes which includes :

A-Bacterial infections such as Brucellosis, Vibriosis, Leptospirosis and Listeriosis.

2- Protozoal (trichomoniasis)

3- Viruses(infectious bovine rhinotracheitis IBR,epizootic viral abortion EVA ).

4- Mycoplasma.

5- Fungal : mycoses(aspergillus).

2- Non-infectious causes

A. Chromosomal abnormalities

B. Nutritional: Toxic plants, Nitrate poisoning, Phyto-oestrogens, Iodine deficiency, Vit. A deficiency .Selenium deficiency, Lead and Cadmium poisoning

C. Stress: Handling, High body temperature, Trauma, Surgery, Vaccinations

D. Miscellaneous: Multiple pregnancy (twinning), Insemination during pregnancy, Corticosteroid therapy, Prostaglandin therapy, Allergy, Dehydration.

**SEQUELAE TO EMBRYONIC OR FETAL DEATH**

**Fetal mummification**

This occurs in cases of fetal death without involution of the corpus luteum and fetal expulsion, followed by autolytic changes, absorption of the fetal fluids and

involution of the placenta.

In cows the maternal caruncle involutes and hemorrhage occurs between the placenta and the endometrium, leaving a reddish-brown, gummy mass that imparts a

reddish brown color to the mummified fetus.

**Causes :**

The etiology is varied and ranges from infectious causes such as BVD, leptospirosis, etc. to non-infectious causes such as genetic, compressed umbilical cord, etc.

**Diagnosis :**

Diagnosis is based on the presence of a CL, the lack of fremitus in the uterine artery and lack of fetal fluid in the uterus. The fetus feels dry and mummy-like on palpation. Oftentimes the head, ribs, etc. can be felt.

**Prognosis** : is good ifthe fetus is removed. After the fetus is removed, conception usually occurs 1-3 mo. later.

**Treatment** : is accomplished by administering PGF2a (with or without estrogen) to lyse the CL. Steroids are ineffective with dead fetus and non-functioning placenta. After treatment, check the vagina because sometimes the mummy may be lodged in the vagina when expelled.

**Fetal Maceration**

Fetal maceration results from death of the fetus followed by dilation of the cervix and incomplete abortion or dystocia, usually during the last half of gestation. This condition can be due to a variety of miscellaneous organisms.

**Diagnosis**

On palpation per rectum, the uterine wall is thick, little or no fluid is present in the uterus and you may be able to palpate fetal bones and pus, or bones crepitating against each other in the uterus.

**Prognosis**

The prognosis is poor for cows with this condition. This is not

a "retained CL" problem so lysis of the Cl is not helpful. Endometrial damage is present even if all fetal parts are removed.

**Treatment**

Treatment is very difficult. The cervix cannot usually be dilated sufficiently to remove all the fetal parts and any remaining fetal parts act as an IUD. Surgery has been performed in valuable individuals but is very difficult.

**Uterine torsion**

Uterine torsion usually occurs near term and is usually found at parturition because of the subsequent dystocia.

**Herniation of the pregnant uterus:**

**Inguinal hernia:**

This hernia is seen in bitch, the original hernia may be acquired or congenital.

**Diaphragmatic hernia:**

This rarely contain pregnant uterus.

**Ventral hernia:** This occur in large animal but it seen also in cat, dog, sheep and goat with weak abdominal muscle.

**Perineal hernia:**

This can be seen in sheep

**Rupture of the prepubic tendon:**

This occur in heavy horse but may be occur in other farm species. This condition accompaind by edema just anterior to the udder. The edema is characheristically painful.

**Prolaspse of the vagina during pregnancy**

Is an important and common condition requiring carful management. It is seen chiefly in cow, ewe, and sow: less commonly in mare, doe, bitch, and queen.

**Etiology** excess antepartum relaxation of pelvic tissues and increased intra- abdominal pressure.

Predisposing fsctors these include: breed in cattle ( theres is a high incidence in Hereford cows) ; high levels of estrogen in the diet ( for example in some clovers) ; possible high indogenous production of estrogen; sloping environment; rumenal tympany; overfeeding with bulky food. Other factors include aging – the pelvic muscles and ligamentsbecome less elastic with successive pregnancies.

**Clinical signs** eversion of the vagina with exposure of the mucosal surface. In early stages the appearance of the prolapse may be intermittent. The prolapse may be partial or complete and in the latter case the cervix may also be visible. The exposed organ is vulnerable to damage and possibly infection. Small animals may cause additional damage by licking the prolapsed organ.

**Treatment**

the aims of treatment is to prevent further damage to te organ, replace it after appopriate cleaning. Supervise the birth, and be prepared for possible postpartem recurrence.

**Methods of treatments**

**-conservative** if the prolapse is intermittent or slight the obstetrician or attendant may simply clean, lubricate, and replace the prolapse periodically while awaiting birth.

Parturition is then carefully supervised to avoid further damage to the prolapsed organ. A cow may be placed in a stall with an elevated rear end so that her hindquarters are higher than her head. The forces of gravity may assist in keeping a small prolapse in place. In other cases repeated injections of epidural anesthesetic combined with xylazine have been used to prevent straining. Wit vary degrees of success.

-**suturing methods** numerous patterns of suture are available including simple mattress suture and Buhners purse-string suture. In each case, careful cleaning of the prolapse and administration of epidural anesthetic is required.

