- 1. Define Uterine Inertia.
- 2. What are two types of uterine inertia?
- 3. Differentiate between Primary and Secondary uterine inertia.
- Uterine inertia is defined as the lack of normal physiologic uterine contractions during or after parturition.
- Two types of uterine inertia are recognized, primary and secondary.
- Primary uterine inertia is due to some inherent deficiency of mechanism of contractions of uterine wall while secondary uterine inertia follows a dystocia and refers to exhaustion.

What is the species wise pattern or trend of 2 types of uterine inertia? What are those 11 conditions or factors responsible for primary uterine inertia?

- Primary uterine inertia is common in dogs, occasionally seen in cow and sow and rare in mare and ewe while secondary uterine inertia is seen in all species of animals.
 - The following conditions may be factors causing primary inertia or lack of uterine tone and feeble contractions at the time of parturition.
- It is observed more often in animals that are closely confined and hence lack exercise.
- It is more common in dairy than beef cattle.
- Excessive fat may be a possible factor in dogs and other species.

- Certain brachy-cephalic breeds of dogs tend to develop uterine inertia despite the size of the litter.
- Overstretching or overloading of the uterus in hydrops and twin pregnancy in cows and a large number of foetuses in small dogs and sows favour uterine inertia.
- It is observed more often in old dairy cows and dogs.
- It is frequently associated with debility or debilitating diseases.

- It may be possibly associated with disease or degeneration of the uterine wall due to uterine infections or secondary to peritonitis as in traumatic peritonitis.
- It may be associated with an improper stimulus being applied to the posterior pituitary gland.
- Or an inability of the uterine musculature to respond to the stimulus of oxytocin.

- A primary uterine inertia in dogs associated with a small number of foetuses where symptoms of parturition are absent and the foetuses die. It was said to be due to a hormonal dysfunction.
- A combination of the above factors may be present.

Why secondary Uterine inertia is due to?

Which species are affected with it?
How it occurs in multiparous animals?
How it occurs in sensitive dams?

- Secondary uterine inertia which is seen in all species is the result of or follows dystocia and is due to exhaustion of the uterine muscle.
- In multiparous animals it may follow dystocia with one foetus, the remaining foetuses not be expelled when the foetus causing dystocia has been removed.
- Certain sensitive dams will refrain from vigorous labour because of pain, and secondary inertia may ensue.

What is effect of poor body condition in multipara as regards secondary uterine inertia?

What are consequences of secondary uterine inertia?

- In other multiparous animals lacking body conditions or strength several young may be born and then the dam and also the myometrium appears exhausted.
- After several hours rest the birth process will again occur or may fail and outside aid will be necessary.
- Secondary inertia is frequently followed by uterine infection, septic metritis, retained placenta and a failure of the normal involution of the uterus.

What happens in prolonged dystocia? What is Bandl's rings and how it complicates relief of dystocia?

- In prolonged dystocia in unipara and possibly multipara, the uterine muscles may become fatigued and produce contraction or retraction rings, also called Bandl's rings, that contract tightly around the foetus or caudal to it.
- This may further complicate the relief of the dystocia or if not recognized it may result in rupture of the uterus if forced extraction is applied to the foetus.

What example is sought for a condition intermediate between Primary and secondary uterine inertia.

 A condition in dogsespecially scotch terriers and toy Dachshunds is intermediate in character between primary and secondary uterine inertia. In these cases the bitch may have 1 or 2 fetuses and then labor ceases with a number of foetuses still in the uterus. There is no visible cause for the dystocia.

 Many cases of secondary uterine inertia may be avoided by careful observation of the female during parturition so that proper help can be given as soon as difficulty arises.

IMMEDIATE CAUSES OF DYSTOCIA

- This may be divided into two viz. maternal causes and foetal causes.
- The incidences of the two have been 25 and 75 percent, respectively.

MATERNAL CAUSES OF DYSTOCIA

- MATERNAL CAUSES: Those factor that produce narrowing or stenosis of the birth canal or prevent normal entrance of the foetus into the birth canal. They include:
- 1. Fracture and exostoses of pelvis,
- 2. Small size of pelvis due to breeding at too young an age,
- 3. Or due to improper rearing with resultant stunting of body growth,
- 4. Hereditary or congenital hypoplasia of the birth canal or vulva,
- 5. Compression or stenosis of the cervix, vagina or vulva by:

Compression or stenosis of the cervix, vagina or vulva

- Compression or stenosis of the cervix, vagina or vulva by:
- 1. Indurations caused by scars and connective tissue usually from injuries at previous parturitions,
- 2. Intrapelvic haemorrhage,
- 3. Perivaginal fat,
- 4. Impaction of the colon,
- 5. Distention of the bladder in dogs,
- 6. Tumors such as Chondrosarcoma of pelvic bones,
- 7. Tumors such as Fibromas, leiomyomas and lipomas of the uterus, cervix or vagina,
- 8. Tumors such as Lymphomas of the large pelvic lymph glands,
- 9. Torsion of the uterus
- 10. Persistence of median wall of mullerain duct,
- 11. Failure of the cervix to dilate or ring-womb in ewes.

MATERNAL CAUSES

- 6. Uterine inertia,
- 7. Hydrops of the foetal Membranes,
- 8. Inguinal or ventral hernia,
- 9. Rupture of prepubic tendon,
- 10. Transverse Presentation,
- 11. Uterine infections resulting in uterine inertia, death, abortion or emphysema of foetus and
- 12. Twinning.

FOETAL CAUSES

- Abnormal Presentation, position and posture and to excessive size of the foetus. These include:
- 1. Certain posterior longitudinal presentations in uniparous animals,
- 2. All transverse ventral and dorsal presentations,
- 3. Dorso-ilial or dorso-pubic positions,
- 4. Flexion of the limbs beneath the body in uniparous and large multiparous foetuses,
- 5. Ventral, lateral or dorsal flexing of the head and neck,
- 6. Fetal anasarca, ascites
- 7. Large fetal tumours
- 8. Distention of any hollow organ such as the brain, stomach, cutaneous sac in Schistosomus reflexus,
- 9. Distension of Kidneys and ureters
- 10. Fetal giantism in prolonged gestation,
- 11. Fetal abnormalities or monsters such as mummified foetus, general ankylosis, double monsters, achondroplastic foetuses and others.