

CAUSES OF DYSTOCIA: BASIC AND IMMEDIATE CAUSES

(maternal and foetal causes; Ring womb in sheep, Whry neck dystocia, Uterine inertia, Bandl's rings)

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A. Basic causes of dystocia:

There are five basic causes of dystocia. These are:

1. **Hereditary**
2. **Nutritional and management**
3. **Infectious**
4. **Traumatic causes**
5. **Miscellaneous**

a. Hereditary:

The hidden or recessive genes in dam or sire result in defective fetus or giant calf which cause prolonged gestation and dystocia. **Achondroplastic calves, hydrocephalus** are example of defective foetus.

b. Nutritional and Management:

High feeding levels to the dam causes excessive fat deposition in the pelvic region causing dystocia.

Deficiency of vitamin and mineral to mother enhance uterine infection and death of foetus. So, abortion or dystocia results.

Close confinement and lack of exercise result torsion of uterus and uterine inertia causing dystocia. **Breeding too soon following parturition** also causes sterility or abortion or dystocia.

c. Infectious:

Infectious agents affects the pregnant uterus causing abortion or premature birth. Premature birth renders fetal extremities prone to postural abnormalities causing dystocia. Infectious agents also cause loss of uterine wall tone or ability to contract i.e. **Uterine inertia**. This happens to incomplete dilatation of cervix resulting prolonged 2nd stage of parturition or labor. As a result the foetus die and dystocia occurs.

d. Traumatic causes:

Ventral hernia and rupture of tendon in late gestation , torsion of uterus, fracture of pelvis with secondary deformities are some of the traumatic causes that result incapable of strong uterine wall

contraction. As a result, inability of dam to force the foetus into birth canal leading to dystocia.

e. Miscellaneous causes:

Minor abnormalities in posture, flexed knee, lateral deviation of head and neck (**whry neck**) and posterior presentation in uniparous animals also cause dystocia.

Important information:

*Infections may be immediate cause of conditions that predispose dystocia.
The basic causes of dystocia are multiple*

B. Immediate causes of dystocia:

The immediate causes of dystocia occurs due to :

- a.) Maternal causes and
- b.) Foetal causes.

a) Maternal causes:

It cause narrowing or stenosis of birth canal. The various maternal causes are :

- a. Fractures or exostosis of pelvis
- b. Small size pelvis
- c. Hereditary/ congenital hypoplasia of birth canal / vulva
- d. Chondrosarcoma(tumors) of pelvic bones
- e. Fibromas/ Lipomas/ Leiomyomas of uterus / cervix/ vagina
- f. Rupture of prepubic tendon
- g. Twinning in uniparous animals (due to double ovulation)
- h. Failure of cervix to dilate(in ewe : is known as “RING WOMB”)

b) Foetal cause:

- i. Abnormal presentation, position and posture,
- ii. Excessive size of the foetus/ giant foetus and
- iii. Foetal abnormalities are the main foetal causes of immediate cause of dystocia.

Abnormal presentation, position and posture:

- a. Posterior longitudinal presentation (Certain)
- b. Transverse ventral/ Dorsal presentation (all)
- c. Dorso-ilial/ Dorso-pubic position
- d. Flexion of extremities (limb/ head and neck)

Foetal abnormalities:

The common foetal abnormalities occurs in cow are :

- a. Mummified foetus
- b. General ankylosis
- c. Double Monster
- d. Achondroplastic foetus
- e. Schistosomus reflexus

Common forms of dystocia in domestic animals:

Mare : Dystocia due to abnormal posture of head and neck

Cow:

- i. Twin dystocia
- ii. Dystocia due to uterine torsion
- iii. Breech presentation
- iv. Lateral deviation of head and neck (**Whry neck**)
- v. Postural abnormalities of limbs

Sow :

- i. Large foetal size
- ii. Dystocia due to uterine inertia : Fairly high

Ewe and goat :

- i. Postural abnormalities
- ii. Twin/ Triplets

Bitch :

- i. Disproportion of foetal size and pelvic diameter
- ii. Large size head

Important informations:

- * In primipara common forms of dystocia in cattle occurs due to disproportion between foetal size and pelvic diameter.
- * Transverse pregnancy is rare in cattle

Recommended reading:

S.J.Roberts (1971): Veterinary Obstetrics and Genital Diseases(Theriogenology)