dystocia

Dystocia means difficult birth which need an external help.

In normal birth the strength of uterine contraction is and alive fetus which enough to push the normal sized

taking the normal attitude if one or more from the above mentioned item is defected ,fetal expulsion will be interfered.

If uterine contraction in parturient animal is weak or absent{uterine inertia} ,

Or if the uterus is twisted around its longitudinal axis before or during{uterine torsion},these will cause dystocia.

Also if the fetal size is bigger than normal {relatively or malformed absolutely big} ,or those feti which are

{hydrocephlus ,double head,etc} or

Abnormal number of the feti{twining}, or abnormalitis in fetal attidue or dead fetus these will cause dystocia

Causes of dystocia

1-maternal causes

A-soft birth canal

a-uterus:

uterine inertia ,uterine torsion & uterine rupture

b-cervix:-

Abnormal dilated(1^{st} , 2^{nd} ,3^{rd} degree & malformation or space occupying lesion)

c-vagina &vulva

Space occuping lesion

B-bony birth way

Abnormal narrowing, congenital or acquired malformations

C-general health disturbance

Traumatic pericarditis ,hernia or hepatitis

2-fetal causes

A- abnormal large size

{relative or absolute}

B- abnormal shape

Double head ,hydrocephalus ,fetal duplication

C-abnormal attitude

Mal presentation ,position ,posture

3-handling causes:

-Unhyginic handling cause fetal emphysema

-Unskillful handing cause deviated head & neck

Basic causes of dystocia

1-hereditary causes

A-Hereditary defects in the dam which predispose to dystocia {inguinal hernia ,twins ,hydropsy ,hypolastc vagina uterine torsion and uterine inertia }

B-defect in the fetus

Increased size ,cerebral hernia and ankylosis

2-nutrition and management causes

-breeding female of small size (age , nutrition)

-excessive deposition of fat

-nutrition deficiency may predispose to uterine infection

-breeding soon after parturtion

-lack of exersice

3-infectious causes

Any infection or disease affecting the pregnant uterus causes uterine inertia ,death of fetus and abortion

4- traumatic causes

These are not common such as ventral hernia , torsion of the uterus

5-miscellaneous causes

As abnormal increased number of feti

Factors affecting dystocia

A-intrinsic factors

-age of the dam

-Breed of the dam

-Cow size and body condition

-pelvic area

-gestation length

-calf weight ,sex& size

-Breed of sire

B-environmental factors

-feeding

-feeding time

-exersice

-disease and hygiene

-season of the years

Diagnosis of dystocia

A-mother : general health finding and vaginal finding

B-fetus : examination of the life , size ,ppp of the fetus

Whether :it is fresh or infected birth

Signs of dystocia

A-in cattle

-Prolonged non progressive 1st stage of labor

-When there is birth pain 1-2 hrs without rupture of the fetal sac

-Straining vigorously 30 min without appearance of calf

-Failure the calf to be delivered within 2-3 hr after amnion appearance at the vulva

-Obvious mal ppp

-Detached hairs from the fetus ,with very bad offensive odour , brownish discharge {emphysematous feyus}

B-in mare

Prolonged non progressive 1st stage

When there is birth pain 1-2 hrs without exit of the fetus

Obivious mal additude

Common forms of dystocia in animals

1-in cattle

-abnormal p.p.p

-emphysematous fetus

-large size fetus{relatively}

-uterine torsions

-uterine inertia.

2-in mares

-Abnormal p.p.p

-transverse pregnancy

-uterine torsion

3-in sheep and goat

-abnormal p.p.p

-large size fetus

-emphysematous fetus

-fetal abnormalities{goat}

4-in she camels

-Abnormal p.p.p

-uterine inertia{old camels}

-uterine torsions

-lage size fetus {immature female}

Uterine inertia

Types

1- primary uterine inertia

Definition:-

It means original deficiency in the contractile potential of the myometrium

Incidence:-

This is associated with 7:21 % of all dystocia in cattle .it change with age and parity .

Increasing from less than 2%in heifers

Increasing 9:10 % in cows between 2nd and 5th calving

Increasing 13:21%in older animals

Causes:-
1-myometrial defect
-intrinsic weakness
-overstretching of the uterus{twinning ,hydropsy}
-Toxic degeneration of the myometrium.
-senility
-systemic disease
-fatty infilteration
2-deficiencies:-
-Ca &Mg
-E2 & oxytocin
3-premature birth
4-rupture or uterine torsion

diagnosis

The cow may standing or laying down and exhibit alittle or no labor activity

There may have been a few feeble abdominal contractions but no progress has been made

In cas of hypo calcemia the cow may be depressed and sternally recumbent with latteral deviation of the head

Vaginal examination reveals awidly dilated cervix and the fetus can be felt

Treatment:

The membrane should be ruptured and the fetus is deliverded by gentle traction.

C.Section may be occure

2-Secondary uterine inertia:

This condition developed when an obstructive dystocia has exited for an abnormally long time and has resulted in exhaustion of myometrium and abdominal musclature.

It is usually followed by retention of the fetal membrane and retarded involution of the uterus it is prevention depends on early recognition that labor has ceased to be normal .correction of the dystocia is the main causes for inertia

3-incoordinated myometrial contraction

Uterine contraction may also fail at the onset of parturation

Incidence :

Little information is available regarding its prevalence when unassociated with other type of dystocia

Causes:-

Insufficient sympathetic stimulus from the autonomic nervous system

Increased reflex release of oxytocin acting on E2

Clinical signs:

The cow is standing or sternal recumbent with her back arched and tail elevated and curled

Vaginal examination is difficult as the intrauterine liquid have been lostand the wall of the vagina ,cervix,and utrus gripthe fetus tightly

Consequences of dystocia

Dystocia may result in

Increased still birth rate

Increased mortality rate

Increased puerperal infection

Increased rate of culling

Reduced the productivity and subsequent fertility

Prevention of dystocia

It is probably impossibe to avoid all cases of dystocia but adivce may be givin on how risk of dystocia may be reduced on future

1-selection of strains of species for breeding which have alow incidince of dystocia

2-avoidance of breeding from animals with history of dystocia

3-ensuring that mother is in good health and is physically large enough and fit to breed

4-accurate diagnosis of pregnancy :known date of artificial insemination or mating

5-careful supervision during pregnancy

6- treatment of any maternal illness or abnormal signs

7-monitoring the fetus during pregnancy ultrasonography is useful in sush cases

8-the degree of supervision should increase as the time of birth approaches

Forcible pulling of the fetus

Forcibnle pulling can be applied when

The fetus is normal in size

Favorable wide pelvis

Normal fetal attitude

Widely open soft birth way

Normal shaped fetus