

Dropsy of Fetal membranes



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Dropsy of placenta (chorioallantoic membrane)

e.g. Placentitis

Dropsy of fetal membranes

e.g. Hydrallantois, Hydramnios

Dropsy of fetus

e.g, Fetal ascitis

Abnormal accumulation of serous fluid in tissues or body cavities is known as Hydrops or dropsy

Dropsical Condition during pregnancy

Clinically represented in 3 ways

Hydrallantois



It is a rare gestational disorders



Rapid accumulation of watery, amber color fluid inside the allantoic sac (**150 to 250 L** Vs **10 L**)



Bilateral distension of abdomen



Incidence – Usually in last trimester



Hydrallantois accounts for about **88%** of dropsical conditions of fetal sac

Etiopathology of hydrallantois

Placentomes

- Reduced numbers
- Abnormally large .

Adventitial placentation

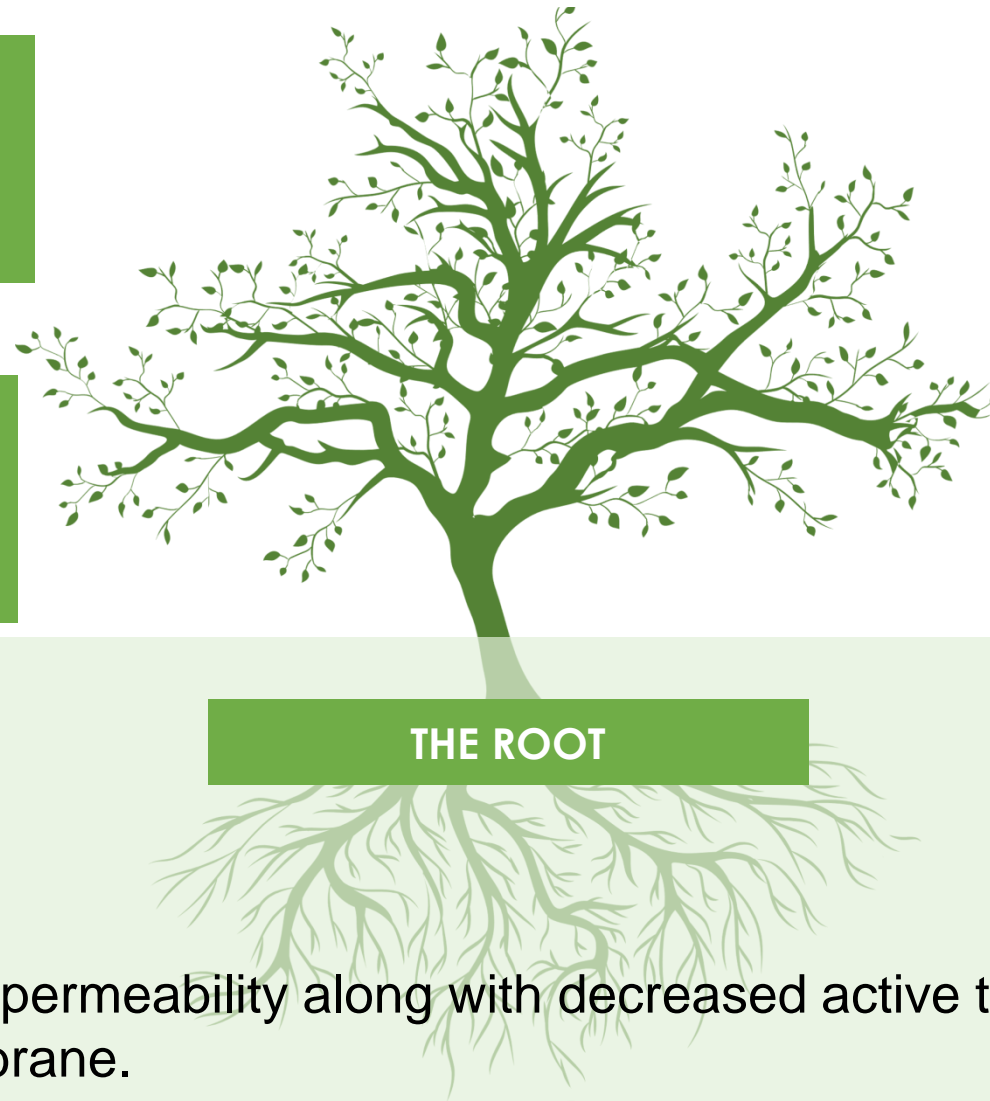
1. Reduction of placental vascularization

2. Enhanced membrane permeability along with decreased active transport of sodium across the chorioallantoic membrane.

Torsion of the umbilical cord or uterus.

- ❖ Twin/Multiple fetuses.
- ❖ Fetal renal pathology (Hydronephros)

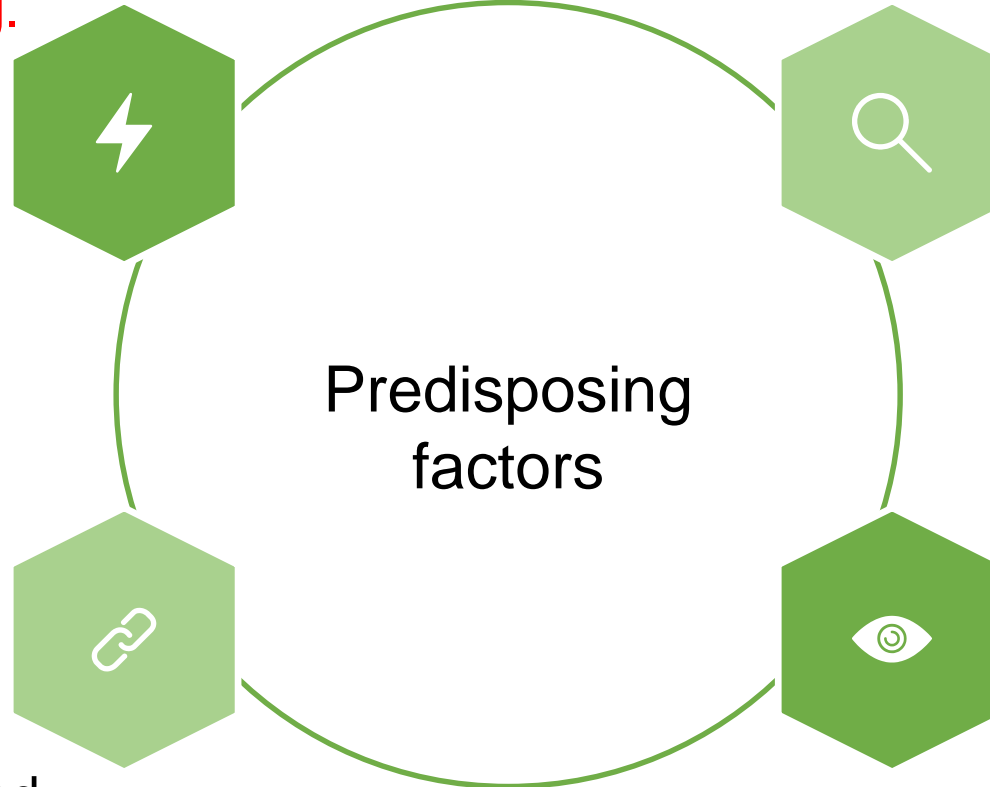
3. Rapid accumulation of fetal fluid



Etiopathology of hydrallantois

Aged animal with placental abnormality

Poorly managed calving.



Manual removal of retained fetal membranes

Metritis.

Clinical Presentation

01

Rapid onset – “Bloated bull frog” like appearance

02

Drastic weight loss and weakness

03

Anorectic, tachycardic, and dyspneic

04

Sequae of heavy weight bearing

Clinical Presentation

01

Rapid onset

- ❖ Rapid and dramatic abdominal enlargement
- ❖ Occurring over a period of a few days to 3 weeks

02

Drastic weight loss and weakness

The enlarged uterus limits feed intake + dramatic increase in body weight



weakness and physical stress



Musculoskeletal problems

Clinical Presentation

03

Sequae of heavy weight bearing

- Fracture of the femur
- Exertional myopathy
- Coxofemoral or sacroiliac luxation,
- Prepubic tendon rupture
- Herniation of the ventral abdominal wall

Diagnosis

01

History and clinical signs (refer previous slides)

Per-rectal examination

02

❖ Grossly distended uterus filling almost entire abdomen

❖ Placentomes and fetus **impalpable**

03

Ultrasonographic examination

▪ Increased volume of allantoic fluid

Latest treatment protocol

01

Transcervical allantocentesis – following procedures are involved

- First of all induce parturition through dilation therapy
- Regularly check for slight (1 or 2 finger) dilation
- Once dilation achieved
- An 18 gauze Rusch catheter is fixed at the internal os of cervix by piercing the allantoic sac gently.
- Later on the balloon was inflated with 10 mL air
- Simultaneously intravenous fluid administration

Hydramnios



It is a rarest gestational disorders



Gradual accumulation of viscous and syrupy fluid inside the amniotic sac (19 to 114 L Vs 3.8 – 7.6 L)



“Pear shape” abdomen. – typical appearance



Associated with congenitally malformed fetus



Hydrallantois accounts for about 5% of dropsical conditions of fetal sac

Etiopathology

01

- Amniotic fluid is secreted by the fetal salivary glands, skin and associated structures.
- Mid gestation onwards amniotic fluid becomes viscous and syrupy in consistency
- Watery fluid is swallowed into large bronchi and finally absorbed through fetal intestine
- Impaired deglutition or renal malfunction in fetus intern leads to accumulation of amniotic fluid – slow and gradual

Clinical Presentation

01

Slow onset

02

Prolonged gestation period

03

Anorectic, tachycardic, and dyspneic

04

Sometimes remains asymptomatic

Diagnosis

01

History and clinical signs (refer previous slides)

02

Per-rectal examination

- ❖ Grossly distended uterus filling almost entire abdomen
- ❖ Placentomes and fetus **palpable**

03

Ultrasonographic examination

- Increased volume of **amniotic fluid**

Defective fetuses associated with Hydramnios

01

“Bull dog” calves in Dexter cattle breed

02

Small brachygnathic calves with lack of bone marrow in Angus cattle

03

Muscle contracture monster in Red Danish cattle

04

Immature small fetus with pituitary hypoplasia/aplasia in Guernsey cattle

05

Some cases occurred together with conjoint twins, schistosomus reflexus and fetus with cranial abnormalities

Diagnosis

01

History and clinical signs (refer previous slides)

Per-rectal examination

02

❖ Grossly distended uterus filling almost entire abdomen

❖ Placentomes and fetus **palpable**

03

Ultrasonographic examination

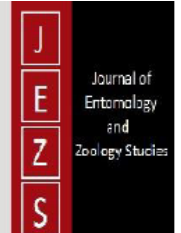
▪ Increased volume of **amniotic fluid**

Case Study of Hydramnios



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A rare case of Hydramnios in cattle and its successful management

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Abstract

Hydramnios is a rare pathological condition during gestation period. Multiple factors can be assigned responsible for its occurrence *i.e.* genetic factor, defective organ system or defective placentation. Its management includes dilation of cervix followed by assisted delivery providing gentle traction as well as provision of intravenous fluid administration in order to prevent of hypovolemic shock associated with splanchnic pooling of blood. In present case we observed about 40 liters of viscous fluid followed by delivery of malformed fetus along with fetal membrane with abnormal cotyledons.

Keywords: Hydramnios, cow, placentation, monster fetus

Case Study of Hydramnios



Observe colour and consistency

Amniotic fluid



Case Study of Hydramnios



Observe anatomical facial deformity

Congenitally defective fetus



Treatment

Treatment is common for both conditions - CS or Dilation therapy

Induction of parturition by dilation therapy

- ✓ Synthetic prostaglandin i.e. Cloprostenol Na @ 500 ug
- ✓ Valethamate bromide @ 48 mg,
- ✓ Dexamethasone @ 40 mg
- ✓ Estradiol valerate @ 30mg

} I/M

Fluid administration –

- ❖ To avoid hypovolemic shock
- ❖ Prevention of Dehydration

Which may occur due to splanchnic pooling of blood and fluid loss



THANK YOU