Dystocia due to Foetal Anasarca and Ascites in Does: Study of Two Cases

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ABSTRACT

The present case study puts on record for two cases of dystocia due to foetal anasarca and foetal ascites in seven years and 4-year-old multiparous non-descript does and their management by caesarean section and per vaginum through traction, respectively.

Introduction

Dystocia is one of the major contributory factors in economic losses in goat farming which result in death of either foetus or dam (Borakhatariya et al., 2017). Foetal monsters arise from adverse factors affecting the foetus in the early stage of its development. The adverse factors affecting are mostly of genetic origin but may also include physical, chemical and viral factors (Jackson, 2004; Chandrashekaran et al., 2015). Foetal monsters may be relatively oversized and result in dystocia and less common cause of foetal oversize includes foetal anasarca and foetal hydrops (Purohit, 2006). Foetal anasarca is characterized by wide-spread swelling of skin due to subcutaneous and inter-muscular accumulation of fluid in muscle, umbilicus, and legs resulted in the formation of generalized edema (Roberts, 1986). Foetal anasarca has been observed mainly in the calf, but occasionally in kids and foals (Craig, 2000). The present manuscript discusses about a case of dystocia due to foetal anasarca and ascites in two different doe and its successful management.

Case history and observation

Two different cases of dystocia in doe were presented at different days in Obstetrical unit of Teaching Veterinary Clinical Complex (TVCC), College of Veterinary and Animal Science, Parbhani.

Case1: A seven years old multiparous ND doe with full term gestation with a history of one live foetus delivered per-vaginum and another was stuck in the passage and unable to deliver even after continuous straining for two to three hours. The doe was earlier attended by local quack. On clinical examination the rectal temperature was normal, 101.8 °F, slight increase in heart rate, 82 beats/min, vulva was swollen and the foetal head was amputated at the base of neck by a local quack in an attempt to relieve
dystocia. Per vaginal examination revealed dilated cervix and the presence of very large oedematous and disproporti-

tionate foetus lodged in the pelvic inlet in anterior longi-
tudinal presentation. Attempts were made to deliver the

efoetus by traction, but could not succeed. Surgical inter-

vention was needed and caesarean section was planned.

Case 2: A four years old ND doe with full term ges-
tation and history of failure of kidding was presented with
Teaching Veterinary Clinical Complex. On clinical exam-
ination rectal temperature was found, 101.6 °F, deformed
oedematous foetal head clearly seen outside vaginal canal.
Dystocia due to foetal ascites was diagnosed by per-vaginal
examination, which revealed large sized fluid filled abdo-
men that fluctuates on pressure revealed foetal ascites. The
foetus was lodged in pelvic inlet in anterior longitudinal
presentation, with dorso-sacral position with foetal head
resting on forelimbs. It was decided to deliver the foetus by
using traction.

Treatment

Case 1: Before starting C-section, the doe was adminis-
trated with fluid therapy (500 mL RL, 500 mL 5% DNS, 50
mL calcium borogluconate), antibiotic (Inj. Enrofloxacin
IM @ 5 mg/Kg b.wt.), non-steroidal anti-inflammatory
drugs (NSAID, Inj. Meloxicam IM @ 0.25 mg/Kg b.wt.),
anti-histaminic (Inj. Chlorphenaramine maleate 5 mL
IM) and vitamin B-complex (Inj. Tribivet 5 mL IV). The
doe was restrained right lateral recumbency and site of
incision (left paralumbar fossa) was shaved and prepared
aseptically using an antiseptic scrub. Local anaesthetic
(Inj. Lignocaine HCl 2%) used for an inverted L - block
at the site of incision. Skin was incised on left paralum-
bar fossa 10-12 cm below transverse process using scalp
blade no. 22 mount on Bard Parker surgical blade handle
no.3. Following skin incision, using sharp and blunt inci-
sion over abdominal muscle and peritoneum to expose the
uterus, which was then grasped, exteriorised and incised to
remove the dead anasarcous foetus (Fig. 1A). The second
live foetus was normal. A uterine incision was flushed
with normal saline solution and incision of the uterus,
peritoneum, abdominal muscles and skin were sutured as
described by Kumari and Dutt (2020) in ewes. Post opera-
tive treatment- suture dressed daily with povidone iodine
solution, fluid therapy (250 mL DNS IV), antibiotic (Inj.
Enrofloxacin IM @ 5mg/kg b.wt.), NSAID (Inj. Meloxicam
IM @ 0.25 mg/kg b.wt.), vitamin B-complex (Inj. Tribivet 5
mL IM), was carried out for 4 days postoperatively.

Case 2: The doe was restrained on the raised platform
in lateral recumbency. The full gloved hand was inserted
into the birth canal to pull the folded fore legs. The cotton
rope was tied on fore legs. Using liquid paraffin as a lubri-
cant the dead foetus was pulled out successfully (Fig. 1B).
Post procedure treatment, fluid therapy (500 mL 5% DNS,
250 mL RL, 50 mL calcium borogluconate), antibiotic (Inj.
Enrofloxacin IM @5 mg/Kg b.wt.), NSAID (Inj. Meloxicam
IM @ 0.25 mg/Kg b.wt.), antihistamines (Inj. chlorphen-
ernarime maleate 4 mL IM) and vitamin B-complex (Inj.
Tribivet 5 mL IV) was administered. Besides, one Cleanex
bolus (Nitrofurazone-60 mg, Metronidazole-100 mg,
Urea-6 gm, Povidone iodine-60 mg), placed intra-uterine.

Results and discussion

In case-1, the dead foetus (Fig.1A) removed by C-section
was anasarcous, flabby with poor bone development, body
structures not clearly remarkable and having a body weight
three times more than normal live foetus. The live foetus
delivered had normal body weight and having normal
body structures. In case-2, only one foetus was delivered
by traction which was dead, ascites, but small size as com-
pared to the dead foetus of case-1.

Foetal anasarca is more common in bovines, but rare
in other domestic animals (Velankar and Deopukar, 1994).
The definitive cause of foetal anasarca is unknown and
may be associated with achondroplasia or bulldog calves or
lymphoid tissue agenesis possibly due to existence of auto-
somal recessive gene defect (Long, 1996; Monteagodu et
al., 2002). Moreover, the obstruction of lymphatic may pre-
vent the disposal of peritoneal fluid and lead to foetal ana-
sarca (Sloss and Duffy, 1986). Foetal anasarca may develop
in single foetus or one of the twins (Roberts, 2004)). In
present case, the concurrent live foetus was also delivered
per-vaginum and presence of this normal foetus would
have helped in maintaining the pregnancy in spite of foetal
anomalies as observed by (Prabharan et al., 2016). A foetus
with anasarca may be prone to dystocia because the gen-
eralized oedema will cause foetus not to pass through pelvic
canal (Noakes et al., 2001). Therefore, surgical interven-
tion is usually required for the delivery of oversize anasar-
cous foetus (Kumar et al., 2005).

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Conflict of interest

None

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