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A rare case of dystocia due to twin ascitic Fetuses in a Surti DOE

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Abstract
A four-year-old Surti doe with history of full term and pluriparous, had dystocia as a result of twin foetal abnormalities, specifically ascitic/anomalies was presented. Based on the history, a clinical examination and a vaginal examination, the case was diagnosed as foetal dystocia due to an ascitic foetus with malpresentation and malpostures in a surti doe. The effective per-vaginum delivery of the twin male ascitic foetuses was achieved with the treatment of foetal malpresentation and malpostures.

Keywords: Dystocia, Twins ascitic Fetuses, Surti doe

Introduction
The most common explanation for Foetal Ascitis or dropsy of the peritoneum is foetal circulation disruption. Peritoneal dropsy is frequently present in conjunction with both developmental abnormalities and an infectious state in the foetus. According to Noakes *et al*. (2001, Hoparkhe *et al*., 2003) [4, 3], the ailment is uncommon in other domestic animals but common in cows. According to Roberts (2004) [7], it could be inherited or related to brucellosis. According to Sloss and Duffy (1980) [8], obstruction of the lymphatic system is likely one of the main causes of ascites, although it can also result from inadequate or excessive peritoneal fluid outflow. Intrauterine foetal death and sterile autolytic alterations are commonly linked to mild foetal ascites and edoema. In a fully mature pregnancy, an ascitic foetus may produce dystocia in a bovine. Although the ascitic foetus is often quite small, its enlarged abdomen makes it lodge in the pelvic inlet. As such, it could be mistaken for the hip lock syndrome. Foetuses that are ascetic fluid must be sacrificed, however there is little loss because these foetuses are usually dead, feeble, or would not survive if delivered alive (Roberts 1971; Arthur, 1996) [6, 1]. To relieve this, one of the easiest methods is to reach alongside the foetus and make a liberal incision through the abdominal wall with a castracting knife. Alternatively, a more difficult procedure could involve subcutaneously amputation and evisceration of the foreleg to release the ascitic fluid in an anterior presentation (Roberts 1971; Arthur, 1996) [6, 1]. Ascitic foetuses exhibit an enlarged abdomen that changes in size in response to pressure; these animals are typically born dead. Even if they survive, their strength is limited. Therefore, the current case report details sho how effective obstetrical care allowed for the delivery of twin male ascitic foetuses in a Surti doe.

Materials and Methods
Case history and Clinical observation
A four-year-old Surti doe in her second parity was brought to the Dr. V. M. Jhala Clinical Complex's Animal Obstetrics section. She had been experiencing full-term gestation, restlessness and tenesmus for the previous two days, but she had not made any progress towards partirition. With the exception of a little tachycardia and a rectal temperature of 103.8 oF, all physiological indicators were within normal range. The goat was standing up and anorexic, with a mild dehydration (Fig-1). The doe appeared to be experiencing severe belly pain as she repeatedly got up and down.

Upon clinical examination, pinkish mucous membranes were found on the conjunctiva (Fig. 2) and vagina (Fig. 4), the mammary glands were totally engorged with milk (Fig. 3) and there was tinged vulval lips with an aberrant reddish chocolate coloured discharge. Palpation and abdominal ballottement revealed the existence of foetuses in the doughy, freely moving masses on the left flank. Following the recommended lubrication with liquid paraffin and antiseptic treatment, a vaginal examination revealed a fully dilated cervix, enabling the palpation of the first foetus with a posterior presentation, dorso-sacral posture and bilateral hip flexion (Fig. 5). The foetal abdomen was found to be tense, enlarged and filled with a lot of fluid. Based on the history, clinical indicators and vaginal examination, the case was identified and confirmed as foetal dystocia due to an ascitic foetus with breech presentation. The doe's haematological analysis showed results of 7gm/dl haemoglobin (Hb), 42% packed cell volume (PCV), 5.13X106/µl red blood cells (RBC) and 18X103/µl white blood cells (WBC).

Fig 1: Alert, active and standing condition in Doe

Fig 2: Pinkish Conjunctival mucus membrane

Fig 3: Mammary glands fully engorged with milk

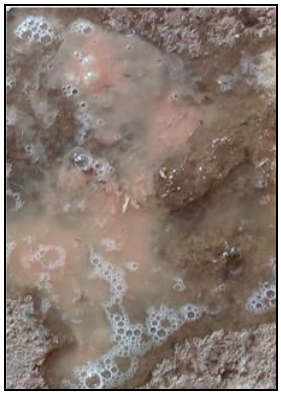

Fig 4: Reddish chocolate coloured discharged was observed

Fig 5: Specific antiseptics per-vaginal examination

Treatment and Results

Following confirmatory diagnosis of fetal dystocia due to fetal ascetic. Perianal region of the dam was again cleaned using 1% potassium permanganate lotion and after proper lubrication using liquid paraffin the fetus was carefully repelled into abdominal cavity of doe, attempts were made per-vaginally to delivered or withdrawal fetus, result into Successfull delivery of first dead male ascitic fetus (Fig-6) (with posterior presentation, dorso-sacral position & bilateral flexion of hips) from birth canal of the dam by grasping hind limbs manually using mutation and forced extraction on the fetus and subsequently the another dead male fetus of similar size with ascitis was also delivered (Fig-7) (with anterior-presentation) in the same manner. The navel bulges and the fluid makes a dull sound when we taps the abdomen of the ascitic dead male foetuses.

Following the removal of both ascitic dead male foetuses. The goat received intramuscular injections of 3 ml of chlorpheniramine maleate@ (antihistamines), 5 ml of vitamin B-complex injection, Melonex® (Meloxicam-Intas, India) @ 0.5 mg/kg. b.wt. IM OD; injection Feritas@ 1 ml IM OD (each ml contains iron sorbitol citric acid–50 mg, folic acid–500 mcg and cyanocobalamin–50 mcg; Intas Pharma, India) and Quintas® (Enrofloxacin-Intas, India) @ 5 mg/kg. b.wt. IM OD; meanwhile, 500 ml of Dextrose normal saline were given intravenously with two Furea bolus (control the uterine infection–Allopathic remedies, India) in the uterus. Two natural remedies are available: liquid Gluca-boost (to sustain energy/glucose) @ 30ml twice PO and liquid Exapar® (natural herbal uterine cleansing and restorative, Natural Remedies, India) @ 20 ml twice PO. Five days were spent intramuscularly administering antibiotics, analgesics, and antihistamines.

The animal was released from therapy on the same day and every other day, a phone call was made to collect patient information. After eight days, the goat was discovered to be successfully recovered, alert, and showing signs of a regular appetite again. A significant improvement in the clinical state was observed 15 days after therapy, as evidenced by an increase in Hb (9.5 gm/dl) and RBC (8.15X106/µl), a drop in PCV (36%) and WBC (10.3X103/µl) as well as a 1.5 kg increase in body weight. Prior to therapy, the levels of MCV (80.08 pg), MCH (11.72 fL), and MCHC (14.63%) demonstrated severe macrocytic and hypochromic anaemia, which may have resulted from a dietary shortage in iron (Fe), folic acid, and cyanocobalamin (Radostits *et al*., 2000) [5]. Following the administration of Inj. Feritas@, there was a noticeable improvement in the haematological indices (MCV

387.41 pg, MCH 8.89 fL, and MCHC 26.70%) as well as the haemogram. Before therapy, there was severe leucocytosis (16X103/µl), which indicated an acute bacterial infection. After taking Enrofloxacin®, there was a sharp decrease in the WBC count (10.2X103/µl).

Fig 6: Delivered first ascitic dead male fetus (posterior presentation)

Fig 7: Delivered second ascitic dead male fetus (posterior presentation)

Fig 8: Delivered twin ascitic dead male fetus

Discussion

Since there were no records available and the goat was only recently purchased from the local market, it was not possible to determine if the occurrence of foetal ascitis in this case was genetic. By performing a serum agglutination test, the possibility that brucellosis was the cause of the foetal ascitis was also ruled out. This is the first time that the ailment has been documented in a rural Gujarati goat. The ascitic foetus is usually fairly small but the distended abdomen causes it to become wedged in the pelvic inlet. It may be confusing with the hip lock condition in anterior presentation whereas, in the present case it was a breech presentation. Bhattacharyya and Baruah, (2013) [2] have also reported a posteriorly presented ascitic foetus with hock flexion. Both dystocia and fetal death are much more likely to occur if the kid is in posterior presentation. To release the fluid from the foetus, it must be sacrificed but this is not a great loss as these foetuses are usually dead or weak or fail to survive if delivered alive (Roberts, 1971) [6]. Ascitic foetuses are typically born dead and exhibit an enlarged abdomen that changes in size in response to pressure during vaginal inspection. Thus, in this instance, forceful extraction and mutation were used to deliver dead ascitic foetuses.

Conclusion

Foetal ascites has been linked to both infectious and noninfectious causes; however, the infectious agent is more noticeable in certain species (small ruminants, dogs, and pigs) than in others (cattle, horses, and cats). Thus, in the current instance, prompt measures combined with a sound diagnosis enable the successful delivery of twin ascitic foetuses and the uncomplicated preservation of the doe's life.

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