

Dystocia due to Bicephalic Craniopagus, Thoracopagus Conjoined Twin Monstrous Fetus and it's Successful Surgical Correction through C-section in a Sheep

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Abstract

A non-descript 3 year-old female sheep bought to Teaching veterinary clinical complex with history of prolonged gestation and straining since last day without further progress. Upon vaginal examination, It was found that the foetus was in anterior presentation with extended forelimbs, and two palpable heads joined around the region of neck. The foetus was dead and confirmed to be a Bicephalic craniopagus monster. Simple traction of the foetus was tried but failed and per vaginal delivery was ruled out. It was decided to perform Caesarean section to relieve a dead dicephalus malformed foetus.

Keywords: monster, malformations, Congenital, conjoined twins, Dystocia.

INTRODUCTION

The congenital malformations are conditions which occur during the prenatal development of animal organisms. Congenital defects are structural or functional abnormality which may affect on isolated portions of a body system or entire system, or parts of several systems and leads to dystocia at the time of parturition (Long, 2001). The congenital defects are induced by genetic or environmental factors including infectious diseases, viruses, drugs, poisonings, plants, mineral salts and vitamin deficiency (A, D, E), hormonal factors, and physical reasons or by their interactions (Mazzulo *et al.*, 2003). Conjoined twins have been reported in farm animals such as sheep and cattle (Unver *et al.* 2007). Dicephalus

means a single fused head which joined together at the forehead and bifurcated at the beginning of the jaw (Pal and Verma, 1981). **Craniopagus:** the condition, affecting some conjoined twins, of being joined at the head **Thoracopagus:** Twins are join face to face at chest.

Case History: 3 year-old non-descript pregnant ewe in its second parturition was referred to the teaching veterinary clinical complex COVAS parbhani with history of straining for past four hours but unable to deliver the fetus, rectal temperature -104.5F, abdominal straining, distress and discharge through vagina

Diagnosis: On per vaginal examination, It was found that the fetus was in anterior Presentation, Extended forelimbs, and two palpable heads Joined around the

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region of neck. The fetus was dead and confirmed to be a **Bicephalic craniopagus** dead Fetus. The ewe had previously given birth to normal fetus. After further assessment, it was confirmed that the fetus was unfortunately **dead**, further complicating the situation. the ewe had previously delivered a normal, healthy fetus without complications.

Treatment: Ewe was presented within TVCC Covas parbhani with complete gestation period and abdominal straining, ewe was in distress and rectal temperature was about 104.5 F, conjunctival mucus membrane was congested and vaginal discharge was thick mucousy and bloody on per vaginal examination, It was found that the fetus was in anterior Presentation, Extended forelimbs, and two palpable heads Joined around the region of neck. The fetus was dead and confirmed to be a Bicephalic craniopagus dead Fetus. Initially the correction of dehydration with 250 ml Ns and 250 ml DNS was given With antibiotic ceftriaxone tazobactam- 600mg IV and antihistamine-Avil 4ml IM. Simple traction of the fetus was tried but failed and per vaginal delivery was ruled out. It was decided to perform Cesarean section to relieve a dead dicephalus malformed fetus. After proper restraining, the non descript ewe was placed on the right lateral recumbency exposing the left flank (Gupta and Chhavi, 2020; Robert and Stephan, 1986). Hair was clipped with help of shaving blade on left para-lumbar fossa. And injected 0.05 mg/kg xylazine intramuscularly For mild sedation (Kachiwal, 2000). After that, the surgical Site was scrubbed with povidine (10% povidine-iodine), lignocaine (2% lignocaine) inverted L-block on lower left para-lumbar fossa as a local anaesthesia agent was given. About 14 cm long vertical incision was placed on lower left para-lumbar fossa (skin), with the help of a surgical blade no 22. The approach was continued by means of a combination of blunt and sharp dissection over subcutaneous tissues and abdominal muscle layer to approach the abdominal cavity (small ruminant surgery). Uterus was extorized. A small incision around 6 cm in length was made on the gravid horn of uterus. In the inter-caruncular area and removed a Full term **Bicephalic craniopagus** dead foetus. The uterus was flush with metronidazole and 2 bolus of Nitrofurazone metronidazole with povidine iodine was place in uterus, uterus was closed by Cushing suture followed by lambert with chromic catgut-0 , routine closure of Peritoneum, abdominal muscles and skin were performed and dressing was done of surgical site. Sheep was recovered successfully after C-section and Post operative treatment was carried for 3 days antibiotic - ceftriaxone tazobactam @10mg/kg IV Nsaid- Meloxicam 4ml IM, anhistamine -avil 3.5 ml IM and fluid therapy was given.

DISCUSSION

This case is notable for its complexity due to the rare form of conjoined twins. Dicephalic Craniopagus, combined with Thoracopagus (fusion at the chest), presents a unique set of challenges in veterinary obstetrics. This type of malformation not only complicates the birthing process but also requires careful surgical intervention to prevent harm to the mother. In the present work, the incidence of congenital anomalies among the examined native breed of sheep and goats was 8.4%. It was higher in sheep (9.4%) than in goats (7.5%). Contrary to a previously study (Leil, 1993). Successful management through Caesarean section demonstrates the effectiveness of surgical intervention in such complex cases, ensuring the survival of the mother even when the fetus cannot be saved.



Fig. 1: Two seprate liver of fetus



Fig. 2: Two eosaphagal tract running seprately and Fused at cranial media sternum



Fig. 3: Two seprate heart of monster



Fig. 4: Bicephalous, Thoracopagus o. conjoined twin monstereus fetus

REFERENCES

1. Gupta, C., Murugan, M., & Ramprabhu, R. (2020). Surgical management of dystocia due to dicephalic and arthrogryposis monster in a cross-bred cow. **Veterinary Ruminant Science**, 9(1), 195-196.
2. Leil, A.Z.A., (1993): Incidence of surgical affections among sheep and goats in Damictta province. M.V. Sc. Thesis, Fae. Vet. Med., Cairo Uni. Giza
3. Long, S. (2001). Abnormal development of the conceptus and its consequences. In D.E. Noakes, T.J. Parkinson, & G.C. W. England (Eds.), **Arthur's veterinary reproduction and obstetrics** (8th ed., pp. 119-143). W.B. Saunders.
4. Mazzulo, G., Germana, A., De Vico, G., & Germana, G. (2003). Diprosopiasis in a lamb: A case report. **Anatomia, Histologia, Embryologia**, 32(1), 60-62. <https://doi.org/10.1046/j.1439-0264.2003.00434.x>
5. Pal, M., & Verma, J.D. (1981). A unique case of monstrosity in a goat. **Indian Veterinary Journal**, 58, 224.
6. Roberts, S.J. (1986). **Obstetrics and genital diseases** (2nd ed.). Woodstock Veterinary Publishing.
7. Unver, O., Kılınç, M., & Ozyurtlu, N. (2007). Cranial duplication (dicephalus) in a lamb. **Turkish Journal of Veterinary and Animal Sciences**, 31(6), 415-417.