

CONJOINED TWIN FOETUS IN A SURTI BUFFALO- A CASE REPORT

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Conjoined twins are the most common cause of dystocia in cattle and buffalo. Conjoined twins develop when incomplete separation occurs after the development of the embryonic plate at 8 days. Depending upon the site of fusion the types of the twins may differ. Varying degrees of fusion occur but anterior duplication is more often seen in ruminants and swine (Arthur, 1956). Monsters consisting of two fetuses or more joined together are common in cow and buffalo (Sane *et al.*, 1971), Solanki *et al.* (2011) and Sathiamoorthy *et al.* (2011) also reported similar case in cross bred cow. Structural or numerical duplication during the embryonic stage give rise to fetuses whose body structures are partially but not completely duplicated (Roberts, 1971). Conjoined twins arise from a single ovum and are monozygotic. Hancock (1954) and Arthur (1956) reported its occurrence to be about one in 1,00,000 bovines' births.

CASE HISTORY AND CLINICAL OBSERVATIONS

A female buffalo, aged 8 years, was brought to cattle market, Akola (MS) for sale with the history of completion of full term pregnancy but with no parturition having occurred. The clinical history revealed that the animal had been straining for the past eight hours with expulsion of the first water bag. Per vaginal examination revealed fully dilated cervix and a conjoined twin monster attached at the trunk region. The monster was dead and was in anterior longitudinal presentation sacroiliac position with two forelimbs in the birth canal. Head palpated at the birth canal showed abnormal formation, and it was deduced that dystocia was due to the dead fetal monster exhibiting postural defects of the extremities. After inducing epidural anesthesia with 2% lignocaine hydrochloride and lubricating the birth canal with obstetrical gel both the fore limbs were fastened to a snare and traction was applied. The other forelimbs were extended towards the vulva, by traction on the fetal trunk and other limbs simultaneously in forward and downward direction, and the female monster twin calves were delivered per vaginum (Fig. 1 and 2).

The twin monster had duplication of all the body parts, but was joined at thorax/trunk (thoracopagus) and weighed approximately 45 kg (Jana and Ghosh, 2012). The spleen, liver and kidneys were underdeveloped. The small and large intestine were common for the twins. Atresia ani was found in both the twins.

POST-OPERATIVE CARE

The animal was given i/v fluid therapy mainly Inj. normal saline (2 lts.), Inj. DNS (2 lts) and Inj. calcium borogluconate (Thical, 450 ml) once and i/m antibiotic therapy using Intacef Tazo (3.375 gms) with other supportive treatment like anti-inflammatory and analgesics drugs once daily and Powder Replanta 50 gm orally BID for the next 5 days.

DISCUSSION

Twins are monozygotic in origin, and are due to incomplete division of one embryo into two components usually at the primitive streak development state (Noden and De lahunta, 1985). Conjoined twins are non-inherited teratologic defects. Such abnormal embryonic duplications resulting in conjoined twins are rare and not well documented in buffaloes. The present case seems



Fig.1: Twin monster with two normal heads, two necks, two pairs of fore and hind limbs



Fig. 2: Conjoined twin monster attached at

to be a non-inherited teratogenic defect of development since there was no history of monster birth in the previous three calvings. Dystocia due to conjoined twin monsters, though uncommon, has been reported earlier in buffaloes (Urankar et al., 1994; Dharni et al., 2000) and in cow (Honnappagol et al., 2005).

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