PER-VAGINAL DELIVERY OF HOMOZYGOUS ASCITIC TWIN FEMALE FETUSES IN A PRIMIPAROUS MURRAH BUFFALO: A RARE CASE

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ABSTRACT

This communication reports a case of dystocia due to homozygotic twins suffering from ascites in a primiparous buffalo. Both the dead female fetuses were delivered successfully one by one by manual traction. The dam recovered eventfully without any post obstetrical complications.

Keywords: *Bubalus bubalis*, buffalo, ascites, dystocia, homozygotic, twins

INTRODUCTION

Twinning in water buffaloes could be of economic importance especially when high genetic buffaloes are to be produced. It has been reported that bovine twins are usually monozygotic in origin, and are, moreover, due to non-inherited defects (Roberts, 1971). Twinning is quite rare in cattle and buffaloes. In water buffalo, 0.01% pregnancies produce twins (Fisher and Adeni, 1956). Fischer (1964) contended that twinning rate in Egyptian water buffaloes is 0.2%, in Indonesian Swamp buffaloes as 0.0002%, and in Malaysia as 0.0003%. Chaudhary (1989) reported <0.3% twinning in Nili Ravi buffaloes, while Kandasamy *et al.* (1989) reported 0.062% in Murrah buffaloes. Fetal ascites has been observed as an occasional cause of dystocia in many species (Purohit and Mehta, 2006), however, its incidence is higher in cow (Arthur *et al.*, 1996).

CASE HISTORY AND CLINICAL OBSERVATIONS

A three years old Murrah buffalo in her first parity with incomplete gestational length (8.5 month) and in 2nd stage of parturition was presented to Teaching Veterinary Clinical Complex, Hisar. There was a history of labour pain since last 12 h. Veterinary aid provided at field level but did not facilitate vaginal delivery. On general examination, the animal appeared alert and active with normal rectal temperature, pulse and respiration. On per-vaginal examination there was fully dilated cervix with fetus present in posterior longitudinal presentation with enlarged abdomen. The fetus was ascitic as excessive fluid was felt in the enlarged abdominal cavity. The head was totally unapproachable per-vaginum. On the basis of clinical findings of per vaginal examination the

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case was diagnosed as fetal dystocia due to ascitic fetus in posterior longitudinal presentation.

TREATMENT AND DISCUSSION

Under epidural anaesthesia using 2% lignocaine hydrochloride, the fetal fluid was evacuated by incising the fetal abdomen with cutting hook. A large amount of straw coloured fluid came out through vagina resulting in reduction of size of fetal abdomen. After that the fetus was delivered by applying traction with snares on hind limbs. On further exploration of birth canal, the second fetus was felt in posterior longitudinal presentation which was also delivered by traction applied on hind limbs (Figure 1). The second fetus was also ascitic but the amount of fluid appeared little bit lesser as compared to the first fetus. Both the ascitic fetuses were female; therefore, the case was finally diagnosed as dystocia due to homozygous twinning. Oxytocin (50 I.U.) in normal saline solution was administered intravenously and the fetal membranes were removed manually. The animal was treated with ceftriaxone, metronidazole, meloxicam, calcium boro-gluconate and vitamin B-complex. The treatment was advised further for five days.

Twinning in the riverine buffaloes of India is a rare event and the birth of a single monozygotic twin was reported out of 20,000 calvings (Roberts, 1971). The gross examination of both the fetuses revealed an abnormally distended abdomen without any gross abnormality confirming the ascitic nature of fetuses. This is in accordance with findings of Singh *et al.* (2012) in a Murrah buffalo.Monozygotic twinning is a sporadic event evoked by uterine conditions from fertilized eggs not genetically predisposed to it and could be induced by mechanical means like injury, excision and by physical and chemical factors (Arey, 1957). In the present case report, the same factors may

Figure 1. Homozygous twin ascitic fetuses delivered per-vaginally in a Murrah buffalo.

be responsible for the homozygous twinning as both the fetuses were female. Twinning rate is also slightly influenced by seasonal effects, with a trend toward more multiple births during the spring (Cady and Van Vleck, 1978; Kinsel *et al*., 1998) or autumn months (Gregory*et al*., 1990) in cattle. Gestation length is comparatively shorter in twin birth than in single birth as in the present case. This observation was the same in cattle (Lambert *et al*., 1996). This is a rare case of homozygotic twinning along with fetal ascites condition in primiparous Murrah buffalo and reported here first time.

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