Management of Dystocia in a Four-horned Antelope (*Tetracerus quadricornis*)
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Introduction
Dystocia is defined as difficult or abnormal birth (Aiello *et al.*, 2005) wherein the labor is abnormally prolonged. Uterine inertia, inadequate birth canal, fetal oversize, abnormal fetal predisposition in the birth canal, feto-pelvic disproportion, twins, incomplete cervical dilatation and uterine torsion are some of the common causes of dystocia in farm animals (Aiello *et al.*, 2005; Bliss, 1988) leading to dam and neonatal mortality and hence heavy economic losses to dairy animals (Arthur *et al.*, 2000; Thomas, 1990). Causes of dystocia and its management has been widely studied in farm animals but very little is known about dystocia in free living and wild ruminants or zoo animals as cases are either rare or are not diagnosed (Pople *et al.*, 2001).

Four-horned antelope belongs to family cervidae and is found in tropical seasonal forests. It is placed in schedule I in India Wildlife (Protection) Act 1972. It feeds on a variety of plants including grasses, foliage, fruits and a wide variety of shrubs and trees. The gestation period of four-horned antelope is 7.5-8 months although higher gestation length has also been reported in cervids (Jeber *et al.*, 2013). Deer usually gives birth to a single fawn, twins have, however, been also reported (Timmins *et al.*, 2008). Young fawns start taking solid food after two weeks and may start rumination after one month of age (Leslie, 2011).

Considering the paucity of literature on reproductive problems in general in cervidae and probably no report of dystocia in four-horned antelope, the present case is reported.

Case History
A four years old female four-horned antelope of Bondla Zoo, Goa was presented with a history of labor since last six hours but failure to deliver the fawn. The animal had already completed the gestation length of 7 months and 25 days. The approximate weight of the doe was 20 kg and temperature, respiration and pulse rate was recorded and found to be 101.0 °F, 18 per min. and 80 per min. respectively. The doe was restless but there were no signs of straining. Per vaginal examination was performed after proper restraining which revealed normal anterior longitudinal presentation, dorso-sacral position and fore limbs were extended in the birth canal. The cervix was completely dilated. The cause of dystocia was tentatively diagnosed as uterine inertia.

![Fig 1. Fawn with mother](image1)

Treatment
The doe was restrained in dorsal recumbency and birth canal was lubricated properly with carboxy methyl cellulose gel. Per vaginal delivery of the fetus was facilitated by mild traction applied on fetal forelimbs. Immediately after delivery the muzzle was cleared of fluids and adhering mucus. Stimulation on muzzle and neck was provided to stimulate respiration. After drying of the fetus with a towel, the fawn was immediately placed before the dam. It is important not to handle the fawn for too long so that the dam may not recognize it. Immediately after relieving dystocia 10 IU oxytocin was administered intramuscularly to facilitate expulsion of placenta. A course of antibiotics (Intacef 500 mg i/m), antihistamine (Anistamin 2 ml i/m), anti-inflammatory (Melonex 2 ml i/m) and B-complex plus liver extract (Bellamyl 2 ml i/m) was given for three days along dextrose 5 % saline on the first day (500 ml i.v). Oral Calcium (Calshakti platina 10 twice daily for 15 days) was also administered. Both the doe and fawn were healthy and doing well (Fig.1-4).

Discussion
Gestation period is highly variable in deer and it is also not possible to predict the exact time of parturition as the date of breeding is not exactly known (Chan *et al.*, 2009). Therefore, timely

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intervention and veterinary aid on the basis of symptoms of labor is very important for the survival of the fawn. The case under record may be due to old age of the dam as the incidence of dystocia is rare in young does and increases as the age of the animal increases (Jeber et al., 2013). Any form of stress to the dam including human disturbance, sudden change of weather may interrupt the process of parturition (Mosdol, 1999). In the present case the uterine contractions were absent and hence the case may be because of uterine inertia as has also been reported in the past (Audige et al., 2001). The case was relieved by manual traction and resulted in uneventful delivery of the fawn and recovery of the doe.

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References


