Incidence of Dystocia in Small Ruminants- A Retrospective Study

K. Anusha¹, M. Praveenraj and G. Venkata Naidu

Department of Veterinary Gynaecology and Obstetrics, N.T.R College of Veterinary Science, Gannavaram-521102 Andhra Pradesh, India.

(Received : 28-10-2015; Accepted : 26-12-2015)

Abstract

A brief retrospective analysis of small ruminants suffering from dystocia presented to the college clinics were evaluated over a period of three years. Within the study period, a total of 64 cases of dystocia were presented, of which 37 were ewes and 27 were does. The objectives of this study were to record the incidence and etiology of dystocia in small ruminants. The etiological factors are categorized into maternal (57.81%) and fetal causes (42.19%). Maternal factors included incomplete cervical dilatation (56.76%), uterine torsion (21.62%), narrow pelvis (2.70%), uterine inertia (16.22%), rupture of uterus (2.70%). Fetal causes of dystocia included gross over size of fetus (11.11%), fetal emphysema (11.11%), fetal monsters (3.70%), postural head abnormalities (18.52%) and postural limb abnormalities (55.56%). From the study, it was concluded that, among the small ruminants the major causes of dystocia being incomplete cervical dilatation (32.81%) and fetal malpostures (31.25%).

Key words: Dystocia, Small ruminants, Incidence, Etiology

Dystocia is the most important obstetrical problem and requires immediate attention both by the owner and the veterinarian. Difficult births in ewes have been reported to be 3% (Jackson, 1995) but variation exists in breeds with incidence ranging from 4.1% in Merino ewes (George, 1975) to 34% in Dorset ewes (George, 1976). Obstetrical problems in goats are similar to those in sheep (Majeed, 1994), however, the incidence of dystocia is considered higher in goats compared to ewes (Mehta et al., 2002). In this paper, a detailed retrospective study of incidence and etiology of dystocia in sheep and goat is presented.

¹Corresponding author : Email : vetdoc04@gmail.com
Materials and Methods
The analysis was conducted on 37 ewes and 27 does suffering from dystocia presented to the Department of Veterinary Gynaecology & Obstetrics of the College at Gannavaram from January 2012 to December 2014. The parity of animals ranged from 1 to 5. The animals were subjected to thorough clinical examination to identify the causes of dystocia and treated accordingly.

Results and Discussion
The birth canal of parturient sheep and goat is very fragile and undue force in pulling out a maldisposed fetus results in uterine rupture with subsequent prolapse of abdominal organs and hence care must be taken in manual delivery (Sharma et al., 2014). In the present study, incidence of maternal causes of dystocia in sheep and goat was 59.46 and 55.56 per cent, respectively. Incidence of maternal causes of dystocia was reported as 35-50 % (Majeed and Taha, 1995; Kloss et al., 2002) in sheep and 31.4-57.8 % (Majeed and Taha, 1989; Purohit et al., 2006) in goats.

Among the causes of maternal dystocia, incomplete cervical dilatation was the main cause of dystocia in sheep (40.91%) and goat (80.00%). Similar findings have been reported by Bali, (1982) in sheep and Purohit et al. (loc. cit) in goats. Incomplete cervical dilatation has been suggested due to hypocalcaemia, hypophosphatemia, mineral imbalance and ingestion of estrogen in pregnant animals (Braun, 1997). In the present study, dystocia with ring womb was treated by administering calcium borogluconate (20 ml IV), DNS (500 ml IV), PGF2α (15mg Dinoprost tromethamine IM), with manual stimulation. After 36 hours of this treatment 2/9 (22.22%) sheep and 5/12 (41.66%) goat responded. Cases not responded to treatment were subjected to caesarean section.

Uterine torsion was recorded in 8 ewes with an incidence of 36.36% of maternal dystocia in ewes. Diagnosis of uterine torsion is difficult especially precervical torsions because of inability to perform rectal examinations in small ruminants. Of the diagnosed torsions, 5/7 (71.43%) post cervical torsions were detorted by rolling the dam and 2/7(28.57%) post cervical and 1 pre cervical torsion were subjected for caesarean section. Dystocia due to uterine inertia observed in 3 ewes (13.63%) and 3 does (20.00%) were treated successfully by forced traction. Other maternal causes of dystocia in ewe like narrow pelvis (4.55%), uterine rupture (4.55%) were treated by caesarean section. Uterine rupture can result from rolling of ewes suffering from uterine torsion, administration of uterine ecbolics like Oxytocin to ewes suffering from failure of cervical dilation or can occur spontaneously (Adams and Nairn, 1983). In the present study uterine rupture in ewe was due to erroneous repeated rolling of dam by flock personnel.

The incidence of fetal causes of dystocia in sheep and goat was 40.54% and 44.44%, respectively. Among the fetal causes of dystocia postural disposition of head (18.52%) and limbs (55.56%) were common. The high incidence of postural abnormalities was because of erroneous attempts to relieve dystocia. Postural limb abnormalities have highest incidence among the fetal causes of dystocia in sheep (40.00%) and goat (75.00%).The incidence of postural abnormalities has been reported between 63 and 69 % in sheep and goat (Purohit et al., loc. cit). Postural abnormalities of head and limbs were corrected manually and fetus delivered by traction after sufficient lubrication.

In sheep among fetal causes of dystocia, oversize fetuses, fetal emphysema and fetal monsters represented 20.00%, 20.00% and 6.67%, respectively. Similar findings have been reported by Majeed et al. (1993). Oversized fetuses, fetal emphysema were subjected for caesarean section, whereas fetal monster with congenital arthrogryposis was delivered by traction.

Summary
A retrospective study was carried out in dystocia of small ruminants and the incidence and etiology were recorded. A total of 64 cases were studied, of which 37 were ewes and 27 were does. Based upon this study, it is concluded that among the small ruminants the major causes of dystocia being incomplete cervical dilatation
Incidence of Dystocia in ... (32.81%) and fetal malpostures (31.25%).

References


Indian Vet. J., October 2016, 93 (10) : 42 - 44

Plasma Enzyme Activities in Buffaloes (Bubalus bubalis) Naturally Exposed to Arsenic Contamination*
Subrat Kumar Dash, Shashi Nayyar1, Rajesh Jindal and C.S. Mukhopadhyay
Department of Veterinary Physiology and Biochemistry, College of Veterinary Science, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana- 141 004, Punjab, India
(Received : 08-09-2015; Accepted : 05-01-2016)

Abstract
The present study aimed at the assessment of the activities of some diagnostic enzymes in buffaloes environmentally exposed to arsenic contamination. Alkaline phosphatase, gamma glutamyltransferase, lactate dehydrogenase and creatine kinase activity in plasma was significantly increased (p<0.05) in the arsenic exposed buffaloes compared to control. The elevation in these enzyme activities might be a consequence of altered hepatic and muscle function in buffaloes of the arsenic exposed area.

Key words: Arsenic, environment, buffaloes, plasma enzymes

Arsenic is a naturally occurring metalloid found in all phases of ecosystem (Flora et al., 2007). Exposure to arsenic is of global concern

*Part of the Ph.D. research work of the first author approved by Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana-141 004, Punjab.
1Corresponding author: Email : shashi.0741@yahoo.com