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## A retrospective study on incidence of dystocia in buffaloes at a referral center

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### Abstract

Total 232 buffaloes suffering with dystocia were analyzed to find out the incidence of different causes of dystocia in one year. The uterine torsion has been observed as a main cause of dystocia in maternal type however, deviation of head was prominent cause under fetal type causes of dystocia in buffalo. In summary, the incidence of dystocia can be minimized by adopting good managemental practices in the farm and houses as well.

**Keywords:** Dystocia, buffaloes, Hisar, maternal and fetal

### Introduction

Dystocia has been defined as delayed or difficult calving which often requires significant human assistance [1, 2, 3&4]. The occurrence of dystocia appears to be highest in cattle and buffalo in comparison to other domestic animals [5]. Buffaloes appear to have lower incidence of dystocia in comparison to cattle probably due to anatomical differences between cattle and buffalo pelvic cavity and bones, fifth sacral vertebra, vaginal canal and vulvar lips [4]. The abnormal calving in various breeds of buffaloes has been reported from 5.6 to 12.6% in Murrah, 8.9% in Jaffrabadi and between 4.6 to 5.4% in Surti buffalo [6]. Moreover, the present study was conducted to analyze the incidence of dystocia cases of buffalo reported in one year in the referral centre.

### Material and methods

Retrospective study was carried out on 232 buffaloes suffering with dystocia and presented to Department of Veterinary Clinical Complex, COVS, LUVAS, Hisar between March 2013 and February 2014. Animal's records were reviewed and information was obtained to analyze the incidence of different causes of dystocia.

### Results and Discussion

The causes of dystocia have been classified into the maternal and fetal causes. The incidence of different type of dystocia is presented in Table 1 and Figure 1-3. The maternal causes were observed to be predominant in buffaloes (75.86%) in comparison to fetal causes (21.14%). Uterine torsion, incomplete cervical dilatation and pelvic fracture were the main causes of dystocia among maternal origin. Uterine torsion (66.81%) was found to be one of the most common causes of dystocia in buffaloes. The Haryana state is most populated with buffalo for dairy industry and due to the bigger size abdomen and loose ligament in buffaloes in comparison to cattle, predispose this species to suffer with uterine torsion especially during near the parturition. Moreover, incomplete dilatation of cervix (6.03%) was second highest cause of maternal dystocia. Hydro allantois was reported in 1.72% buffaloes as a cause of dystocia. However, percentage of dystocia due to pelvic injury was observed only in 1.29%. Nevertheless, the head deviation (8.61%) was reported as a most common fetal cause of dystocia and further, fetal monsters (5.17%) and emphysema (4.31%) were observed to be other main fetal causes of dystocia.

In the present study, a higher incidence of maternal dystocia was seen in buffaloes which is similar to the studies of Srinivas [7] however, contrary Phogat [8] reported fetal cause as a main cause of dystocia in buffalo. In the present study a high incidence of uterine torsion was recorded as 66.81% which is in close agreement to findings of Naidu [9]. Head deviation

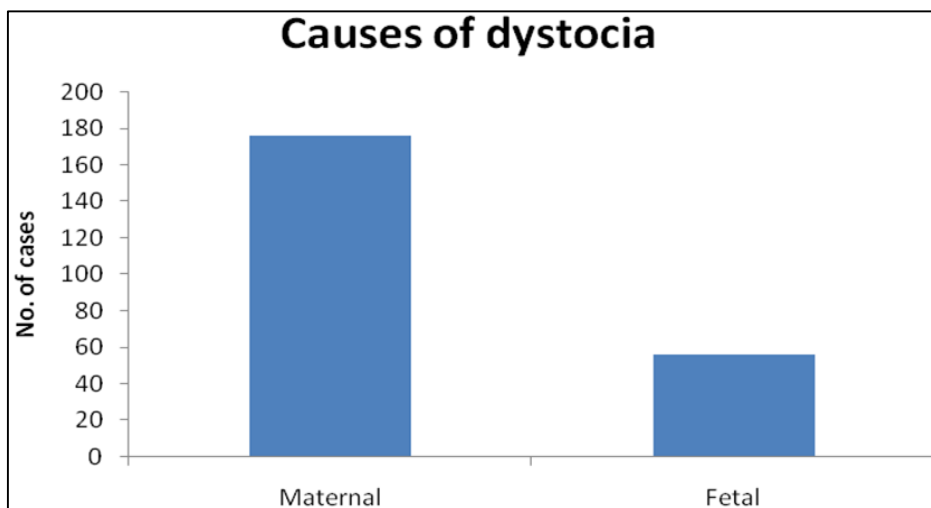
(8.61%) was found as the main cause of fetal origin of dystocia in the present study which is like findings of Srinivas [7] who reported head deviation from 7.5- 12.2%. Similarly, fetal monsters which were 5.17% in the present study are in accordance with findings of Phogat [8].

**Conclusion**

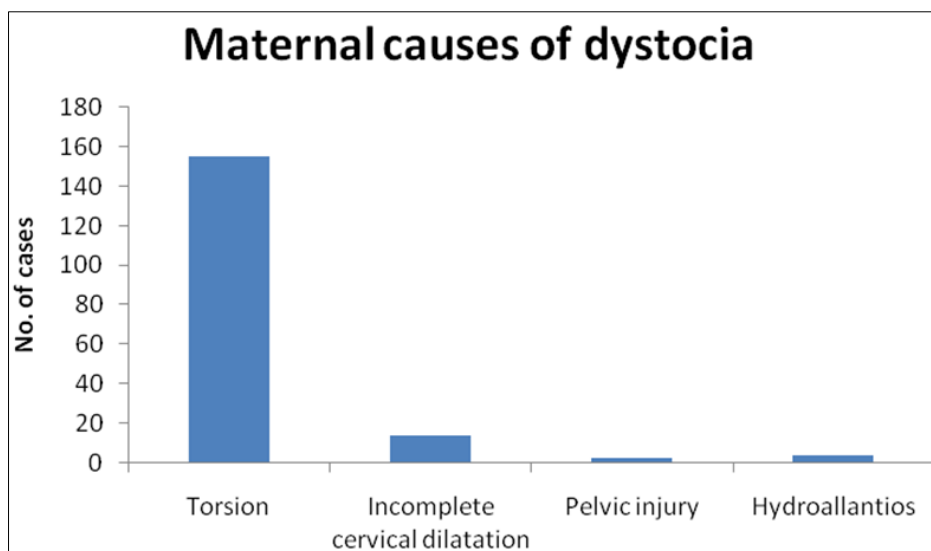
The maternal causes of dystocia are more common in buffaloes and uterine torsion is the main cause among the others causes. The incidence of uterine torsion could be minimized by applying good managerial practices in buffalo.

**Table 1:** Incidence of various types of dystocia in buffaloes

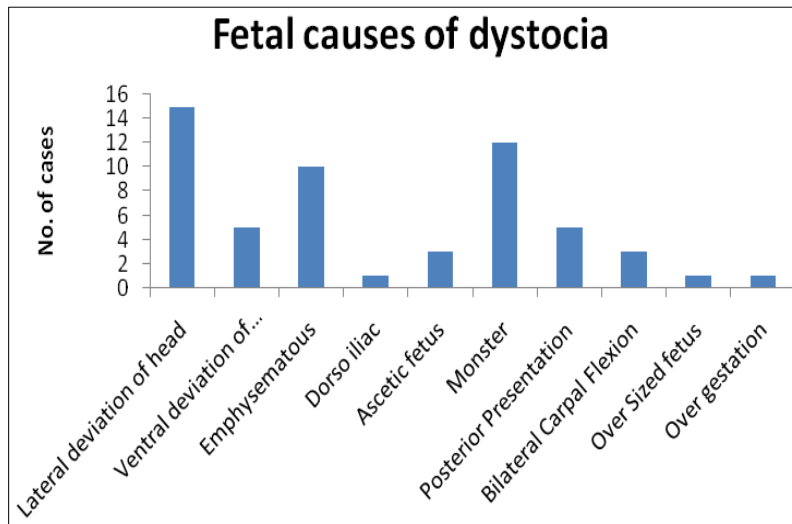
Type of dystocia	Cause of dystocia	No. of cases	Percentage
Maternal (n=176)	Uterine torsion	155	66.81
	Incomplete cervical dilatation	14	6.03
	Pelvic injury	3	1.29
	Hydro allantois	4	1.72
Fetal (n=56)	Lateral deviation of head	15	6.46
	Ventral deviation of head	5	2.15
	Emphysema	10	4.31
	Dorso iliac position	1	0.43
	Ascetic fetus	3	1.29
	Monster	12	5.17
	Posterior Presentation	5	2.15
	Bilateral Carpal Flexion	3	1.29
	Over Sized fetus	1	0.43
	Over gestation	1	0.43



**Fig1:** Causes of dystocia in buffaloes



**Fig 2:** Maternal causes of dystocia in buffaloes



**Fig 3:** Fetal causes of dystocia in buffaloes

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