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Short Communication

A CLINICAL STUDY ON SURVIVABILITY AND MILK PRODUCTION FOLLOWING CAESAREAN SECTION IN BUFFALOES

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SUMMARY

Dystocia cases (n=51) in buffaloes were analyzed to observe the consequences of caesarean sections on dam's survivability and milk production. All the caesarean sections were performed in lateral recumbency with site of incision lateral and parallel to milk vein under local anaesthesia. Survivability rate was 60.78% following caesarean section. Of these 51 cases, 30 cases of uterine torsion undergoing caesarean sections had survivability rate of 66.67% and average milk yield per day was 0.7 kg. But survivability rate was 100% and milk yield was more than 4kg in buffaloes that were treated within 24 h. From the study it was concluded that the animals treated earlier (<24 h) had higher chance of survival and satisfactory milk production as compared to those animals which were treated later (>24 h).

Key words: Caesarean section, dystocia, milk production, survival rate

Torsion of uterus usually occurs in a pregnant uterine horn and is defined as the twisting of the uterus on its longitudinal axis (Purohit *et al*., 2011). The pregnant uterus rotates about its long axis, with the point of torsion being the anterior vagina just caudal to the cervix (Purohit *et al*., 2011) (post-cervical torsion). It is recognized as a major obstetrical disorder in buffaloes causing dystocia (Srinivas *et al*., 2007) and caesarean section is the only choice to solve this disorder in delayed cases (Kumar, 2012). Uterine torsion is followed by incomplete dilatation of cervix and uterine inertia. It is observed commonly in pluriparous animals at the time of parturition or during the last month of gestation (Roberts, 1986). Right side uterine torsion is prevalent due to the presence of the rumen on the left side and absence of a muscular fold in the right broad ligament of the buffalo (Ghuman, 2010). Less commonly the point of torsion is cranial to the cervix (pre-cervical torsion).

The caesarean section dilemma has been based on poor dam survival rates and poor fertility. However, survival rate of dam is high if surgery intervention i.e., caesarean section (CS) is performed at an early stage without previous handling (Ghuman, 2010). We analyzed the post-partum milk production and survivability rate of dam following CS in uterine torsion-affected buffaloes.

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Buffaloes (n=51) suffering from dystocia were presented to the Teaching Veterinary Clinical Complex of this University. The maternal and fetal causes of dystocia in these cases are summarized in Table 1. Only 30 buffaloes were included in this study that was suffering from uterine torsion. Majority of these buffaloes suffered from right side post-cervical uterine torsion. A total of 23 buffaloes were in second stage of parturition with the history of failure of delivery of fetus per vaginum. The CS in each case was performed in right lateral recumbency with site of incision lateral and parallel to milk vein following local infiltration of 80-120 ml of 2 % lignocaine hydrochloride solution. Intrauterine boli (Tetracycline) were placed in the uterus. Oxytocin (50 IU), Ca-Mg borogluconate (450 ml), dexamethasone (40 mg) were administered intravenously. The post operative treatment included broad spectrum antibiotics, multivitamin, metronidazole in recommended doses and route and DNS 5%, 5 l i.v. for 7 days. Antiseptic dressing was done for 10 days. After 14 days, skin sutures were removed.

In the present study, survivability rate of dam was 60.78% following CS in all the 51 dystocia cases. Of the 51 cases, 30 uterine torsion cases were selected. These 30 cases were not detorted by rolling and the dam survivability rate was 66.67% and average milk yield was 0.7 kg. The survivability rate was 100% in 7 cases of uterine torsion that were brought to the Clinic and

Table 1
Maternal and fetal causes of dystocia in buffaloes underwent caesarean section

Cause of dystocia related to	Cause of dystocia	No. of buffaloes affected	No. of buffaloes died
Maternal	Uterine torsion	30	10
	Hydrallantois	1	1
	Narrow pelvis or pelvic fracture	2	0
	Incomplete cervical dilatation	6	3
	Vaginal prolapse	1	0
Fetal	Fetal monster	7	3
	Fetal maldisposition	1	0
	Fetal emphysema	2	2
	Macerated fetus	1	1

underwent surgical intervention i.e., CS within 24 h of dystocia onset. The survivability rate reduced to 56.52% in the remaining 23 cases of uterine torsion undergoing CS after 24 h of dystocia onset. According to Purohit *et al*. (2013) dam survival rates were high (64.7 to 100.0 %) when the CS was performed within 24-36 h of dystocia onset whereas survivability might decrease to 25-33.0% when the surgical intervention was done after 72 h. The survival rate of dam has been reported to be the highest (62.5%) during spring (Singh *et al.,* 2013). Kumar (2012) observed 62.5% survival rate in dystocia cases those were fresh and not handled at field level as compared to 25% in those animals which were previously handled at field level. The delayed cases and the animals that were handled at field level were not observed in lactation.

The survivability rate was higher in animals which were brought earlier to the clinic and not treated at field level. The milk yield recorded after 20 days of CS was higher in 7 animals (>4kg) which were brought to the clinic within 24 h as compared to 23 animals (<1 kg or nil) which were brought to the clinic at a later stage (>36 h) of dystocia onset.

It was concluded that the survivability rate was higher in dystocia affected animals which were brought earlier in clinic i.e. within 24 h. Fresh cases of uterine torsion subjected to caesarean section had higher survivability (100 % vs 56.52 %) and milk yield (>4 kg vs <1 kg) compared to animals which were brought to the clinic at a later stage, respectively.

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