

COMPARATIVE INFLUENCE OF ANTENATAL FOETAL PRESENTATION POSITION AND POSTURE ON SIXTY PRIMARY UTERINE INERTIA BITCHES

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The study was conducted at TVCC, Nagpur Veterinary College, Nagpur. Prospectively a complete clinical evaluation was done in 60 cases from bitches suffering from complete and partial primary uterine inertia with the objective to study the influence of antenatal foetal presentation, position and posture on 24 complete and 36 partial primary uterine inertia in total 60 bitches, irrespective of breed, size, age and parity. Foetal factor influencing primary uterine inertia i.e antenatal foetal presentation, position and posture of 60 puppies most caudally present in the uterus delivered from 60 bitches have been recorded and found that 34 (56.67 %) fetuses were delivered in anterior presentation while 26 (43.33 %) in posterior expulsion.

Keywords: Antenatal, Bitches, Presentation.

Dystocia, defined as difficult birth or the inability to expel all fetuses through the birth canal without assistance, is a frequent problem in the dog. The overall incidence of dystocia in the bitch may be as low as 5%, but may reach almost 100% in the achondroplastic breed and those selected for large heads (Darvelid and Linde, 1994 and Eneroth *et al.* 1999). Honparkhe *et al.* (2010) reported 12 per cent of dystocia among various reproductive disorders in canines. Dystocia in the bitch was more around 84.12 % of maternal origin than that of fetal origin as 15.88 % (Pawar, 2013).

The most common causes for foetal dystocia included foetal oversize, foetal malpresentation, litter size (single pup pregnancies, hyperfoetation), foetal monstrosities, breech presentation of an oversized fetus and foetal death (Oluwatoyin and Fayemi, 2011)

During pregnancy, the orientation of the foetuses within the uterus was 50 % heading caudally and 50% cranially, but this changes during first-stage labour as the foetus may rotate on its long axis, extending its head, neck, and limbs to attain normal birth position, resulting in 60 % of pups being born in anterior and 40 % in posterior presentation (Van der *et al.*, 1981).

If the fetus has advanced partly through the pelvic canal, it will create a characteristic

bulge of the perineal region. Easing the vulvar lips upward may reveal the amniotic sac and the position of the fetus. Vaginal exploration and radiographic examination will aid in making a diagnosis in the cases when the fetus has not advanced as far (Linde, 2015). Therefore, the aim of the present research was to study the influence of the antenatal presentation, position and posture of the foetus most caudally present in the uterus at the time of whelping in 60 bitches.

Materials and Methods

Prospectively a complete clinical evaluation was done in all the bitches suffering from uterine inertia presented for the treatment with the completed gestation period at Teaching Veterinary Clinical Complex, Nagpur Veterinary College, Nagpur, irrespective of age, size and breeds.

The diagnosis of 24 dystocia bitches due to complete primary uterine inertia was made, if the case presented had a history of completion of pregnancy term, complete absence or the presence of very weak signs of first stage of labour, and the presence of greenish or blackish-green lochia on the perineum, vulval or vestibule for at least two hours. When there was no evidence of lochia in the perineum, per vaginal examination was done with the help of finger to identify presence of discharge. The diagnosis of 36

dystocia due to partial primary uterine inertia was made, if the second stage of labour had begun, one or more pups had been delivered at least two hours before, but subsequently either there was complete absence of straining or the presence of only weak efforts by the animal to expel the puppies. Antenatal foetal presentation, position and posture of the fetus most caudally present in the uterus at the time of whelping were studied in all bitches of primary uterine inertia.

During the present study, 60 uterine inertia bitches were randomly divided in to five groups each comprising of 12 bitches and therapeutic management was carried out in group I, II and III by using Calcium gluconate 10 % @ 0.2 ml/kg by I/V, Oxytocin @ 2 IU/kg I/M, Valetamate Bromide @ 1mg/kg

body weight I/M along with Dextrose 5% I/V in every group respectively. Whereas group IV was administered the combination of all the three drugs mentioned above along with Dextrose 5 % and Group V was kept as control group in which only Dextrose 5% was given. During the study caesarean sections were carried out in the all non responded bitches even after medical treatment.

Results and Discussion

The data regarding foetal factor influencing complete primary and partial primary uterine inertia i.e antenatal foetal presentation, position and posture of 60 puppies delivered from 24 complete & 36 partial primary uterine inertia bitches has been recorded and presented in Table-1.

Table 1 : Antenatal foetal presentation, position and posture in uterus of bitches (n=60)

Uterine inertia in bitches (n=60)	No of fetuses (n=60)	Presentation		Position		Posture
		Anterior	Posterior	Dorso-sacral	Dorso-pubic	Extension of limbs
Complete primary Uterine Inertia(n=24)	24	14 (58.33%)	10 (41.67%)	13 (54.17%)	11 (45.83%)	24 (100 %)
Partial primary Uterine Inertia(n=36)	36	20 (55.55%)	16 (44.44%)	19 (52.78%)	17 (47.22%)	36 (100 %)
Overall total	60	34 (56.67%)	26 (43.33%)	32 (53.33%)	28 (46.67%)	60 (100 %)

In multiparous animals, posterior longitudinal presentations were considered to be normal and in fact around 40 per cent of fetuses are delivered in the posterior presentations as also mentioned by Purohit (2011), who further recorded that since the limbs of multiparous animals are small, short and flexible hence their posture was of little significance.

Table-1 reveals that out of 24 bitches from complete and 36 bitches from partial primary uterine inertia 14 (58.33 %) and 20 (55.55 %) were in anterior presentation, 10 (41.67%) and 16 (44.44%) in posterior position, whereas 13 (54.17 %) and 19 (52.78%) from dorso-sacral and 11 (45.83%) and 17 (47.22%) were presented in dorso-pubic position respectively. Regarding position out of 60 fetuses 32 (53.33 %)

fetuses were delivered with dorso-sacral and 28 (46.67 %) were of dorso-pubic position. All the 60 (100%) fetuses were delivered with the posture of complete extension of limbs (Fig.1).

The present findings are in agreement with Liu *et al.* (1992) who has classified dystocia into the 3 types: due to the weakening of delivery power (70%), due to obstruction of the genital tract (10%) and due to the foetus (20%) and reported that 60 % of litters born in anterior presentation and 40 per cent in posterior presentation.

As the present study was specially about uterine inertia in bitches there were no any foetal mal-presentation, foetal oversize or foetal monsters, as these all are common causes of foetal dystocia and not the causes of uterine inertia like the report of Oluwatoyin

and Fayemi (2011) who stated that the most common causes for foetal dystocia are foetal oversize, foetal malpresentation, litter size

(single pup pregnancies, hyperfoetation), foetal monstrosities, breech presentation of an oversized foetus and foetal death.

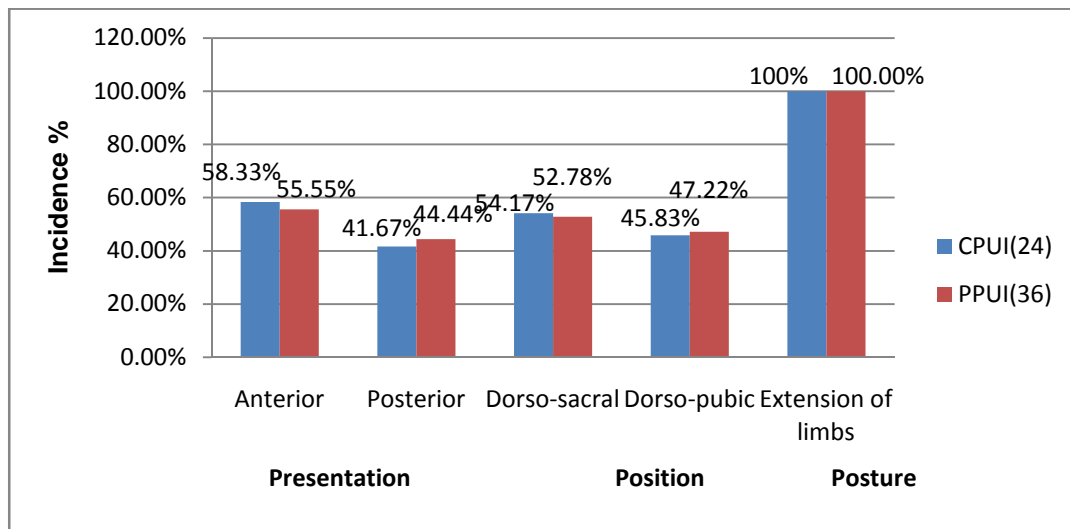


Fig.1- Antenatal foetal presentation, position and posture in uterine inertia bitches

Overall 60 fetuses delivered from 60 primary uterine inertia showed 34 (56.67 %) delivery in anterior presentation and 26 (43.33 %) in posterior expulsion. The frequency of occurrence of anterior and posterior presentation of the fetuses at the time of whelping in all the 60 bitches was non remarkable, therefore from the present study, it can be concluded that foetal presentation during the second half of pregnancy and at the time of birth is fortuitous with equal chance for anterior and posterior presentation. Therefore, antenatal foetal status will be of less meaning with the uterine inertia in bitches.

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