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Short Communicaton

Dystocia Due to Secondary Uterine Inertia in Large White Yorkshire Sow

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ABSTRACT

Fourth crop large white Yorkshire female having the complaint of difficulty in farrowing was diagnosed as a dystocia. In the present case, the occurrence of dystocia was due to secondary uterine inertia followed by lack of uterine muscle contraction. Three numbers of dead fetuses were delivered after administration of oxytocin and calcium borogluconate. Totally the sow farrowed ten live piglets and three dead piglets. The sow was administered with fluids, antibiotic and anti-inflammatory injections intravenously. Sow was recovered uneventfully. In the present case, uterine inertia is managed successfully by administration of oxytocin and calcium borogluconate.

Key Words: Calcium,Dystocia, Oxytocin,Secondary uterine inertia, Sow.

INTRODUCTION

The positive income of a breeding farm completely depends on reproductive efficiency of the female animals. Compatible reproductive performance is most important to attain the maximum profit from sows' life. However, many breeding sows are culled before getting their full potential due to low or complete loss of reproduction (Stalder *et al*, 2004). Dystocia is defined as difficulty in expulsion of young one which is one of the major contributory factors in peri-natal death of dams and newborns in animals (Ali, 2011; Ahmed *et al*, 2021). The incidence of dystocia in sow is very rare case and recorded to be not more than one per cent (Cowart, 2007; Benesch, 2001). The causes of dystocia in animals occur due to multifactorial reasons. However, in pigs, uterine inertia is the major cause for dystocia than the other causes (Roberts, 2004). Generally uterine inertia is classified into two types *viz.,* primary uterine inertia and secondary uterine inertia. In primary uterine inertia, cervical dilation occurs and the fetus is in normal position but not delivered due to lack of uterine contractions. Mainly Primary uterine inertia occurs because of hormonal dysfunction whereas in secondary uterine inertia is mainly due to exhaustion of uterine muscle and results in failure to delivery of a male disposed or oversized fetus or due to obstruction in the birth canal (Roberts, 2004).

HISTORY AND OBSERVATION

Two and half years old fourth crop large white Yorkshire sow was attended at Pig breeding Unit, Post Graduate Research Institute in Animal Sciences, Kattupakkam with the history of difficulty in farrowing after successful delivery of ten live piglets. On general examination sow was dull and showing continuous expulsive straining on lateral recumbency position. Last piglet was delivered five hours back. On clinical examination revealed normal vital parameters and pink conjunctival mucus membrane. On vaginal examination, it was found that one fetus in posterior presentation at middle of the uterus. Based on the history and clinical examination, this case was confirmed as dystocia due to secondary uterine inertia.

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TREATMENT

The sow was administered with injection oxytocin 20 IU intra muscularly. After 15 minutes, birth passage was lubricated with liquid paraffin andonemale dead fetus was removed by manual retraction. One more fetus was palpated in deep of the uterus but unable to hold the fetus. The sow was administered with 100ml of 25% calcium borogluconate through intravenous route slowly. One dead male fetus was delivered after 15min. of infusion. After 20 min. of last piglet one more female dead fetus was delivered by manual traction. Finally, the sow was delivered 10 live fetuses with an average birth weight of 1.32kg and 3 dead fetuses with an average weight of 1.29kg (Figure.1). Then sow was administered with dextrose normal saline 500ml, antibiotic gentamicin @4mg / kg body weight, anti-inflammatory injection meloxicam @ 5mg / kg body weight intravenously. Bolus Uromet forte was kept intra uterine to avoid future uterine infection. The parenteral therapy was continued for next two consecutive days. Animal was active, water and feed intake were normal from day third onwards. Finally, the sow was recovered uneventfully.

RESULTS AND DISCUSSION

In the present case, the occurrence of dystocia was due to secondary uterine inertia followed by lack of uterine muscle contraction. Reshma *et al* (2020) and Tukheswar *et al* (2018) also reported similar type of dystocia in swine, which was mainly due to uterine inertia. Mota *et al* (2007) reported that incidence of uterine inertia is due to irregular secretion of oxytocin hormone and lack of uterine muscle contraction because of low blood calcium level. In late farrowing, administration of oxytocin increases the regular uterine contraction even when the uterine muscles were exhausted. Sometime administration of excess dose of oxytocin results in hyper stimulation of uterus and its end with uterine rupture and fetal death (Phaneuf *et al*, 2000). Rapid administration and high concentration of calcium may lead to cardiac arythemia. Intravenous

Figure.1 Delivered live and dead fetus by dystocia

administration of calcium for management of uterine inertia was successfully reported in several reports. Reshma *et al* (2020) reported administration of antibiotics, anti-inflammatory and fluids helps to recovery of sow unevenfully. In the present case, uterine inertia is managed by strategic use of oxytocin and calcium borogluconate.

CONCLUSION

Dystocia in sow due to secondary uterine inertia is successfully managed with oxytocin and calcium borogluconate therapy. The sow was recovered uneventfully.

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