Obstetrical management of dystocia in a sow: A case report

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Abstract

This paper represents a successful obstetrical management of dystocia due to feto-maternal disproportion in a sow. A dead oversized fetus was successfully delivered using obstetrical rope applying along the ventral margins of the mandibles. The sow was treated with parenteral antibiotic and non-steroidal anti-inflammatory drug for 3 consecutive days. The sow recovered uneventfully by 7th day post treatment.

Key words: Dystocia, Feto-maternal disproportion, Obstetrical rope, Sow

Pig rearing is an integral part of income source for many households of Assam (Ahmed *et al.*, 2017a). Reproductive disorders of animals usually cause severe loss to farmers in terms of higher percentage of culling. Dystocia is defined as difficulty in normal parturition which is one of the major contributory factors in peri-natal death of dams and newborns in animals (Ali, 2011; Ahmed *et al.*, 2017b). The incidence of dystocia is very rare in sow and it was recorded to be less than 1% due to smaller size of piglets at parturition (Cowart, 2007). The causes of dystocia are multifactorial in animals. However in pigs, dystocia due to uterine inertia is fairly higher than the other causes (Roberts, 2004). Proper diagnosis of dystocia is utmost important for successful obstetrical management (Ahmed *et al.*, 2020). In this context, this manuscript describes a rare case diary of successful obstetrical management of dystocia in a sow.

An one and half year old sow in her first parity was presented in the Veterinary Clinical Complex, Lakhimpur College of Veterinary Science, Assam Agricultural University, Joyhing, North Lakhimpur, Assam, India with the history of furrowing of one live male piglet. The sow was showing continuous expulsive straining, restlessness and

inappetance since 5 hours before reporting. On clinical examination, the animal was found depressed, dehydrated and on lateral recumbent position. The rectal temperature, respiration rate and heart rate were recorded as 100.5°F, 45 breaths per minute and 95 beats per minute, respectively. On clinico-gynaecological examination, the fetal snout was visible through the vulbal lips fixed tightly around the vulva with no vaginal discharge (Fig. 1). The fetus was found to be dead. Based on digital examination, it was confirmed that there was disproportion between the fetal head and maternal pelvic diameter. From the above findings the case was diagnosed as dystocia due to feto-maternal disproportion and it was decided to manage by assisted delivery using obstetrical rope.

The sow was restrained on lateral recumbancy. The birth canal was lubricated by using 25 mL glycerin with the help of a flatter valve apparatus fitted to a disposable syringe. The adhesion of the fetus in the maternal birth canal due to dryness was digitally cleared. It was decided to correct the condition by using obstetrical rope to prevent further injury to the sow. The loop of obstetrical rope was applied in the upper jaw with application of gentle and gradual traction to deliver the piglet. During

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Fig. 1. Exposed snout of the retained piglet

Fig. 2. Delivered piglet by fixing the loop along the ventral margins of the mandibles

traction, the upper jaw of the fetus was broken after which, the obstetrical rope was fixed behind the ears of the presented piglet. The rope was adjusted with the loop along the ventral margins of the mandibles (Fig. 2) so that the neck of the piglet was not flexed. Once the grip was achieved, gentle and gradual traction was given and finally the retained oversized piglet was successfully delivered without causing any damage to the sow. The placenta also expelled out along with the piglet. Presence of any other feti was ruled out by examination and radiographic confirmation. Post-operatively, the sow was treated with broad spectrum antibiotic ceftriaxone @ 10 mg/kg b. wt. i.m. (Intacef; Intas Pharmaceuticals Ltd.) and Meloxicam @ 0.5 mg/kg b. wt. i.m. (Melonex; Intas Pharmaceuticals Ltd.) for 3 consecutive days. The sow recovered uneventfully after 7 days of treatment.

Dystocia is an important fatal condition to both the dam and feti, and it needs immediate attention irrespective of species (Ahmed *et al.*, 2019). In swine, the incidence of dystocia is

very rarely encountered (Coward, 2007). In the present report, small litter size might be the cause of fetal over size resulting in disproportion between fetal size and maternal pelvic diameter. This is in agreement with the report of other researchers (Roberts, 2004). In the present case, the oversized piglet in anterior presentation was manually delivered by the application of loop of the obstetrical rope along the ventral margins of the mandibles, which is in agreement with previous report (Schuh and Kurth, 2005). Dystocia being an emergency condition in animals, any negligence may become life threatening to both mother and feti. Obstetrical management could be an important tool for correction of dystocia in swine as it causes nominal damage to the dam and its subsequent fertility. This present case study provides the technique of obstetrical management of dystocia in a sow due to fetomaternal disproportion in anterior presentation.

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