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## Manual retrieval of posterior presented hydrocephalus fetus leading to secondary uterine inertia: A case report of dystocia in queen

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### Abstract

A nine months old, primiparous mixed breed queen was brought to the Veterinary Clinical Complex, Lakhimpur College of Veterinary Sciences, Assam Agricultural University, Joyhing with a history of difficulty in parturition. As reported by owner the queen was showing severe straining behavior 3 days ago with bloody mucus discharge from the vagina. On clinical examination, the hind legs of foetus were seen hanging from the vulva. The queen was dull, depressed, severely dehydrated and exhausted due to straining for long duration. After removal of the foetus, the foetal head was found to be very large then the normal size. On the basis of these clinical symptoms and findings, it was diagnosed as dystocia due to secondary uterine inertia along with fetal hydrocephalous. The queen was treated with fluid therapy and was relieved from dystocia with traction by proper lubrication with Carboxy Methyl Cellulose. Antibiotic, antihistaminic and vitamin injection was given as a therapeutic management and the queen recovered uneventfully.

**Keywords:** Dystocia, hydrocephalus, posterior presentation, queen, secondary uterine inertia

### Introduction

Dystocia is the inability of the dam to expel the fetus at parturition through the birth canal without assistance. The incidence of dystocia in queen is quite low (Jackson, 1995) [6] but when it occurs, it may result in life threatening situations to both the dam and the young ones. It has been observed that the total incidence of dystocia in the queen is 5.8% (Gunn-Moore and Thrushfield, 1995) [4] whereas, the incidence of maternal dystocia is 83.6 and fetal dystocia is 16.4% (Dejneka *et al.*, 1995) [1]. There are many maternal causes leading to dystocia such as uterine inertia, nervous voluntary inhibition of labor, narrow pelvis, abnormal maternal soft structures, and uterine abnormalities (Jackson, 1995) [6]. The prime cause of maternal origin has been observed to be uterine inertia which occurs about 60.6 % of cases and whereas, fetal causes of dystocia are fetal oversize, fetal malpresentations and fetal monstrosity (Purohit and Gaur 2004) [7]. The important causes of dystocia may be due to functional causes (uterine inertia) or obstructive causes (maternal, fetal or a combination). In the present study we are going to discuss a case of dystocia in a queen due to fetal monstrosity which resulted in secondary uterine inertia.

### Case history and clinical findings

A mixed breed primipara queen of nine months old; weighing 4.2 kg body weight was presented to the Veterinary Clinical Complex, Lakhimpur College of Veterinary Science, Assam Agricultural University, Joyhing. The owner reported that the queen had shown difficulty in parturition and straining behavior was observed 3 days ago along with bloody discharge from the vagina and the vaginal region was frequently licked by the queen. The queen showed reluctance in consuming food and water as well.

The body temperature of queen was measured and found to be 102.7°F. On auscultation heart rate was 165 beats per minute and respiration rate was 31 breaths per minutes. Due to straining for long duration the queen was observed to be very dull, depressed, weak, severely

dehydrated and exhausted. On physical examination, while lifting the tail, the fetus was presented in the posterior presentation where both hind legs of fetus (paws) were hanging from the vulva of the queen (fig. 1). The abdominal palpation shows no further palpable mass. The animal was advised for ultrasonography to confirm if any more fetuses were present in the uterus. On the basis of history and clinical symptoms it was diagnosed as dystocia due to fetal disproportion resulting in secondary uterine inertia.

### Treatment and Discussion

Initially the queen was infused with normal saline (0.9%) solution intravenously to stabilize the animal. Then the little finger was lubricated with carboxy methyl cellulose and was applied in the queen genital tract to maneuver the fetus out and relieve it from dystocia. At first the fetus was presented in the posterior presentation with one hind leg was hanging properly out from the vulva. The fetus was repulsed into genital tract to get adequate space for manipulation of other leg and the tail of fetus which was stuck inside the genital tract. After correction of the both legs and tail the fetus was subjected to traction and manipulation to get rid of dystocia. On application of traction the fetus was relieved till the shoulder region and the head remained stuck in the genital tract (fig. 2). This was then followed by proper lubrication around the peripheral region of the head adjacent to the vulva. Subsequently, traction was applied and a dead fetus was recovered with a hydrocephalus head (fig. 3).

As therapeutic management the queen was injected with Ceftriaxone antibiotic @ 15 mg/kg intravenously once daily for 5 days, vitamin B- complex injection 0.5ml total dose intravenously along normal saline fluid (0.9%, @ 80 ml once daily) for 3 days and 0.5mg/kg body weight of Meloxicam intramuscularly. The queen recovered uneventfully.

In this case of dystocia, fetopelvic disproportion occur due to fetal monstrosity (Hydrocephalus fetus) which resulted in secondary uterine inertia. Similar findings was also reported where secondary uterine inertia was found to be a consequence of another cause of dystocia, such as fetopelvic disproportion, in which uterine contraction ceases after a period of non-productive activity (Ekstrand and Linde-Forsberg, 1994). Fetal monstrosity is relatively infrequent cause of dystocia in queen, however hydrocephalus and schistosoma reflexus (Dejneka *et al.*, 1995) [1] have been observed in queen. When medical therapy or assisted

vaginal delivery does not seem to deliver the kitten, caesarean delivery is the recommended course of action (Freak, 1962) [3].



**Fig 1:** Fetus in posterior presentation where both hind legs of fetus (paws) were hanging



**Fig 2:** Fetus was relieved till the shoulder region and the head remained stuck in the genital tract



**Fig 3:** Dead fetus with a hydrocephalus head

## Conclusion

We can conclude that the fetopelvic disproportion (hydrocephalus head) of fetus which further leads to secondary uterine inertia in queen caused dystocia. The dystocia was relieved by proper lubrication of genital tract and repulsion of fetus followed by forced traction. The intravenous fluid therapy, antibiotic and supportive therapy helped in recovery the condition of queen.

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