



# **Fetal Dystocia due to Postural Defects of Neck and Carpals in a Jenny: Case Report**

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## **ABSTRACT**

This article puts on record successful management of dystocia due to lateral deviation of head and neck and flexion of carpal of both forelimbs in a jenny. A 5 year old jenny in her first parity was presented to outpatient department of Veterinary Teaching Hospital, College of Veterinary and Animal Sciences, G.B. Pant University of Agriculture and Technology, Pantnagar with a history of complete gestation, straining since morning, the water bag ruptured and treated by a local vet without any success. Per vaginal examination revealed complete dilatation of cervix and dry foaling passage. The case was diagnosed as dystocia due to lateral deviation of head and neck and flexion of carpal of both forelimbs. The postural abnormalities of the fetus were corrected by applying repulsion on the brisket region and the head and neck were brought into normal posture by holding the mouth of the fetus in the palm. The fore limbs were brought to normal posture by grasping the hoof of the fetus and straightened one by one. Snares were applied on both the fore limbs at fetlock joint and a blunt eye hook was placed in the right orbit of the fetus. The fetus and the foaling passage were thoroughly lubricated with liquid paraffin and traction is applied. A dead male foal was delivered per vaginally after applying traction. Post operative medication of the jenny was done and healthy recovery was observed.

**Keywords:** Dystocia, Donkey, Jenny, Lateral deviation of head, Flexion of carpal

Jenny is very similar in many reproductive aspects to the horse mare (Pugh, 2002). In the equides, because of the relatively early separation of the placenta, foal survival is very short; thus if there is dystocia there will be stillbirth (Noakes, 2001). The gestation period of jenny is of 365 to 376 days (Roberts, 1971) but extreme variations range from 340 to 395 days is observed (Chauhan *et al.*, 2013). Foaling is rapid and forceful event. Early intervention is necessary if the foal is to be saved (Ricketts *et al.*, 2006). Donkey dystocia or obstetric cases have been reported, but their true incidence and nature is still unknown and it was only occurring in 1-4% of all foaling (Threlfall, 2007). Dystocia was found to be responsible for 20% of foal mortality within 48 hours of birth (Haas, 1996). Females that suffer from severe dystocia should not be served at the foal heat; if they are, then pregnancy rates will be lower than normal for this stage, and a small number will suffer from traumatic injuries which may result in sterility. All studies have shown that dystocia occurs more frequently in primipara than in pluripara (Haas, 1996). This case report describes successful handling of dystocia in jenny caused by abnormal posture (lateral deviation of head and neck and flexion of both carpals) of fetus.

### **Case presentation**

A 5 year old jenny in her first parity was presented to outpatient department of Veterinary Teaching Hospital, College of Veterinary and Animal Sciences, G.B. Pant University of Agriculture and Technology, Pantnagar with a history of complete gestation, straining since morning, the water bag ruptured and treated by a local vet without any success. The animal was restless and in standing posture. The rectal temperature was 101.5°F; heart rate was 36 per minute. The animal is administered with 2% lignocaine hydrochloride epidurally. Per vaginal examination revealed complete dilatation of cervix and dry foaling passage. A dead fetus is palpable with anterior longitudinal presentation, dorsosacral position and lateral deviation of head and neck and flexion of carpal of both forelimbs. The postural abnormalities of the fetus were corrected by applying repulsion on the brisket region and the head and neck were brought into normal posture by holding the mouth of the fetus in the palm. The fore limbs were brought to normal posture by grasping the hoof of the fetus and straightened one by one. Snares were applied on both the fore limbs at fetlock joint and a blunt eye hock was placed in the right orbit of the fetus. The fetus and the foaling passage were thoroughly lubricated with liquid paraffin and traction was applied. A dead male foal was delivered per vaginally after applying traction. The jenny was administered with fluid therapy (4 liters of Normal saline and 3 litres of Dextrose normal saline IV), antibiotic (3.5g of ceftriaxone-tazobactan IV; Intacef-Tazo<sup>®</sup>, Intas Pharmaceuticals Ltd,

Ahmedabad, India), anti-inflammatory (50 mg of meloxicam IM; Melonex<sup>®</sup>, Intas Pharmaceuticals Ltd, Ahmedabad, India), 70 mg chlorpheniramine maleate IM (Anistamin<sup>®</sup>, Intas Pharmaceuticals Ltd, Ahmedabad, India), tetanus toxoid 5ml (Serum Institute of India Ltd, Pune, India) , and 8 ml multivitamin injection (MVI<sup>®</sup>) were administered. Four furea boluses were placed in the uterus of the jenny and owner was advised for proper care of the animal.

## Results and Discussion

In general, while approaching a case of dystocia it is advisable to assess the extent of cervical dilatation and the presentation, position, and posture of the fetus before making a decision about therapeutic treatment or obstetrical intervention. Equine dystocia is a true emergency and threatens survival of dam and fetus both (Freeman *et al.*, 1999). With foals, 98% assume an anterior longitudinal presentation between 6/1–2 and 8/1–2 months of gestation. A small proportion of the remaining 2% – possibly about 0.1% – are transverse presentations, in which the extremities of the fetus occupy the uterine cornua while the uterine body is largely empty. This presentation causes the most serious of all equine dystocias. It probably arises at about 70 days of gestation, when the uterus normally changes from a transverse to a longitudinal direction in front of the maternal pelvis as a result of the allantochorion passing from the pregnant horn into the uterine body (Arthur, 2008). In the equines the fetus changes from a ventral to a dorsal position during the course of labour. Therefore, as might be expected, ventral as well as lateral positions are much commoner in equine than in bovine dystocias; they arise during birth. However, an increased rate of dystocia is commonly feared when Jennies are bred to stallions. The lateral deviation of head should be checked and evaluate properly because it might be a congenital deformity known as *wryneck*, in which the head and neck are fixed in flexion due to ankylosis of the cervical vertebrae, arises during the peculiar bicornual gestation of solipeds. Although showing a lower incidence in horses than in cattle, defects of limb posture cause more serious dystocia in mares than in cows. This is due to the severe pelvic impaction that is consequent upon the mare's very strong expulsive efforts, and to the longer limbs of foals (Arthur, 2008). Dystocia risks are increased in miniature donkeys because of the domed large forehead of some foals and following abortion due to malformation (Chauhan *et al.*, 2013). While correcting the postural defects of limbs it is necessary to protect the uterine and vaginal wall from lacerations and tears by the hardy nature of the hooves. The dystocia in equides is urgency and should be treated as early as possible. The proper diagnosis and evaluation of the condition is necessary to take the appropriate decision. In case of a dead fetus and

prolonged dystocia a complete fetotomy is indicated, if fetus is live or the dystocia cannot be resolved by manipulation or fetotomy then immediate cesarean can be performed depending upon the condition of the female.

## References

- Chauhan, P. M., Sindhi, S. H. and Tha, K. B. 2013. Fetal dystocia due to dorso-pubic position and postural defects in a Jenny: a case report. *Veterinary World*, **6**(2): 116-117.
- Freeman, D.E., et. al. 1999. Caesarean section and other methods for assisted delivery: comparison of effects on mare mortality and complications. *Equine Vet.J.* **31**:203-207.
- Haas, S. D., Bristol, F. and Card, C. F. 1996. Risk factors associated with the incidence of foal mortality in an extensively managed mare herd. *Can.Vet. J.*, **37**, 91
- Noakes D.E., 2001. Dystocia and other disorder associated with parturition. In; Noakes, D.E., Parkinson, T.J., England, G.C.W., ed.; *Arthur's Veterinary Reproduction and Obstetrics*, 8<sup>th</sup> ed. Elsevier Ltd.; 2001, pp. 341-355.
- Pugh, D. G. 2002. Donkey reproduction. *Proc. Am. Assoc. Equine Pract.* **48**, pp. 113-114.
- Ricketts, S.W., Barrelet, A., Barrelet, F.E. and Stoneham, S.J. 2006. The stallion and mare reproductive system In: Higgins, A.J. and Snyder, J.R., ed.; *The Equine Manual* 2<sup>nd</sup> ed. Elsevier Ltd.; 2006, pp. 713-763
- Roberts, S.J. 1971. *Veterinary Obstetrics and Genital Diseases*, 2<sup>nd</sup> ed. C.B.S. Publisher and distributors.; 1971, pp. 233.
- Youngquist, R.S. and Threlfall, W.R. 2007. *Current Therapy in Large Animal Theriogenology*, 2<sup>nd</sup> ed. Elsevier Ltd.; 2007, pp. 118-130