DYSTOCIA DUE TO BILATERAL CARPAL FLEXION IN A TETANIC MARE

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SUMMARY

A case of successful delivery of filly with bilateral carpal flexion in a tetanic mare is documented. Carpal flexion does not provoke a severe dystocia unless accompanied by flexion of elbow or scapulohumoral joint. Retropulsion of the fetus and manipulations of fetal parts are easier if sufficient space is created in the uterus. In the present case, sufficient space was not created because of the recumbent position of the mare and abdominal contractions occurring as a result of tetanic convulsions despite under epidural anaesthesia. It was observed that there was sufficient space in the birth canal that could allow the simultaneous passage of neck and both forelimbs with bilateral flexed carpals. It was concluded that a successful delivery can be made in mares, with a foal having carpal flexion, even without extending the limbs but with a word of caution that the genital passage should be wide enough.

Key words: Bilateral carpal flexion, dystocia, mare

The occurrence of dystocia in mares is infrequent in comparison to other large animals, which varies between 4-10% amongst the different breeds worldwide. The most often causes cited for dystocia are abnormalities of fetal presentation, position or posture with long fetal extremities predisposing the mare to problems in delivery (Roberts, 1986).

Case history and treatment: A five year old Marwari Albino mare (full term, 3rd parity) was presented to the Veterinary Clinics with a history of lateral recumbency and symptoms of prolapse of 3rd eyelid, congested mucous membranes, staggering, abdominal contractions, opisthotonus posture, extended and stiffened limbs and hyperaesthesia. Routine clinical examination noticed a rectal temperature, heart rate and respiration rates of 100.4°F, 92 beats per minute and 23 breaths per minute, respectively. The mare was treated with procaine penicillin (80 lacs IU, i/m), anti tetanus serum (3 lac IU, i/m), NSS (12 litre, i/v) and diazepam (60 mg, i/m).

Subsequently, the mare was subjected to clinicogynaecological examination for pregnancy and foetal status. Vaginal examination revealed partially dilated cervix with fetal head within chorioallantoic membrane (red bag) pushing through it. On rectal examination, foetal head was in the pelvic cavity and foetal movements were present along with normal amount of placental fluids. To hasten the delivery, 15 IU oxytocin was administered slow intravenously with 500 ml NSS, thrice at 20 minutes intervals. Following this, foetus head within the chorioallantois moved out of vulva but further delivery was arrested. On examination, the foetal forelimbs were found engaged at the pelvic inlet. Considering the urgency of the situation, the chorioallantois was broken at the cervical star followed by the breaking of amnion. After administering epidural anaesthesia (2% lignocaine hydrochloride, 5 ml) (McKinnon and Voss, 1993), an attempt to correct the flexion of either of the forelimbs by retropulsion of head into the uterus with simultaneous lifting, rotation and pulling of limb did not yield into its extension. As there was sufficient space available in the pelvic cavity in relation to the fetal size, nylon snares were passed around the carpal joint with the help of flexible calving rope carrier and traction was applied which resulted in the successful delivery of fetus. The filly exhibited signs of slight asphyxiation due to fluid aspiration, was resuscitated, given procaine penicillin and put on orphan feeding (milk replacer). Within 1.30 h the

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placenta got expelled but resulted in 3rd degree prolapse of uterus. The prolapsed part of uterus was reposed after washing with cold water and Condy's lotion. Inj oxytocin (Pitocin 15 IU, slow i/v) was administered to hasten uterine involution and prevent recurrence of prolapse. Two days later, mare died due to tetanus, while the filly survived uneventfully.

Dystocia in mares is a serious problem that becomes life-threatening for both dam and fetus, if proper obstetric assistance is not given immediately. In 247 cases admitted to a referral hospital for resolution during 15 years period, the head or limb malposture of fetus accounted for the most common cause of dystocia (Byron et al., 2002). Carpal flexion (unilateral or bilateral) does not provoke a severe dystocia unless accompanied by flexion of elbow or scapulohumoral joint (McKinnon and Voss, 1993). Retropulsion of the fetus and manipulations of fetal parts are easier if sufficient space is created in the uterus (McKinnon and Voss, 1993). In the present case, sufficient space was not created because of the recumbent position of the mare and abdominal contractions occurring as a result of tetanic convulsions despite under epidural anaesthesia. It was observed that there was sufficient space in the birth canal that could allow the simultaneous passage of neck and both forelimbs with bilateral flexed carpals. The authors conclude that a successful delivery can be made in mares, with a foal having carpal flexion, even without extending the limbs but with a word of caution that the genital passage should be wide enough.

REFERENCES

