

SUCCESSFUL DELIVERY OF HYDROCEPHALIC FOAL THROUGH FETOTOMY IN A MARE

AJEET KUMAR¹, S. P. S. GHUMAN² and M. HONPARKHE³

Department of Animal Reproduction, Gynaecology and Obstetrics
Guru Angad Dev Veterinary and Animal Sciences University
Ludhiana, Punjab- 141004

ABSTRACT

A case of successful pervaginal delivery of hydrocephalic foal through partial fetotomy and by relieving the fluid from enlarged head has been reported.

Key words: Foal, Dystocia, Fetotomy, Hydrocephalus

Dystocia due to congenital hydrocephalus has been well documented earlier in cattle (Purohit *et al.*, 2006) and buffalo (Kumaresan *et al.*, 2003), but it is rarely reported in mare. The present case report puts on record a rare case of dystocia due to hydrocephalic foal and its successful per-vaginum delivery through partial fetotomy.

CASE HISTORY AND OBSERVATION

A mare in second parity with complete gestation period was presented to veterinary clinics of the teaching hospital. The animal was straining since last 24 hrs and waterbags had ruptured before the case was presented to clinics. Per-vaginal examination revealed soft and relaxed cervix along with fetus in transverse dorsal presentation. No fetal extremities were palpable in the birth passage, though palpation of head, deep inside the uterus revealed absence of palpebral and suckling reflexes.

TREATMENT AND DISCUSSION

Since there was no space to correct the fetal presentation, decision was taken to perform fetotomy using Thygeson's fetotome loaded with the wire saw (Bovivet, Denmark). Following epidural anesthesia (4ml, 2 % Lignocaine HCl) and after doing ample lubrication of the birth passage with sodium carboxy methyl cellulose gel (Carmellose-Na 1%, WDT, Garbsen, 1. Assistant Professor, 2. Associate Professor, 3. Assistant Gynaecologist

Germany), amputation of hind quarter (at lumbo-sacral region) was performed. Both hind limbs were brought in to the birth passage and traction was applied but failed to deliver amputated part. Thereafter, pelvic bisection was performed and both hind limbs were extracted out separately. The rib cage and both the fore limbs were brought in to the birth canal. Moderate traction failed to deliver the fetus per vaginum. Decision was taken to amputate one fore limb. Thereafter, to deliver remaining fetus, moderate traction was applied on other fore limb and vertebral column. Surprisingly, it was not possible to bring the head in to the birth passage. Careful examination revealed extremely enlarged head which had fluctuating consistency. A small stab incision was given to evacuate the fluid and thereby reducing size of the head. Again traction was applied and remaining fetus delivered successfully. Placenta was also removed completely. Next day, the mare was discharge with the routine prescription of antibiotics and supportive therapy.

Gross examination of the fetus (Fig) revealed that fetus had fluid filled sac protruding outside from the head. The careful dissection of this sac revealed thinning of frontal, parietal and temporal bones with involvement of ventricular system and sub-arachnoid space, hence declared external hydrocephalus condition (Thomson, 1989).

Hydrocephalus is characterized by swelling of cranium due to abnormal accumulation of cerebrospinal

fluid (CSF). The condition arises due to disturbances in normal circulation of CSF because of altered production or absorption (Fride, 1971). The accumulation of CSF may occur either in ventricular system alone i.e. internal/non-communicating type or in ventricular system as well as sub-arachnoid space i.e. external/communicating type (Sharma, 1996). The latter condition was seen in the present case of hydrocephalic foal.

REFERENCES

- Fride, R. L. (1971). *Developmental Neuropathology*. Springer Verlag, New York.
- Kumaresan, A., Garg, A., Mahapatra, U.S., Shankar, U. and Agarwal, S.K. (2003). Dystocia due to hydrocephalus calf in a buffalo cow. *Indian J. Anim. Reprod.*, **24**: 82.
- Purohit, G.N., Gaur, M. and Sharma, A. (2006). Dystocia in Rathi cows due to congenital hydrocephalus. *Indian J. Anim. Reprod.*, **27**: 98-99.

Sharma, A. (1996). Dystocia due to hydrocephalic fetus with downward deviation of head in mare. *Indian Vet. J.*, **79**: 337-338.

Thomson, R.Q. (1989). *Special Veterinary Pathology*, 1st Edn. IBS publishers and Distributors, Shahadara, Delhi.

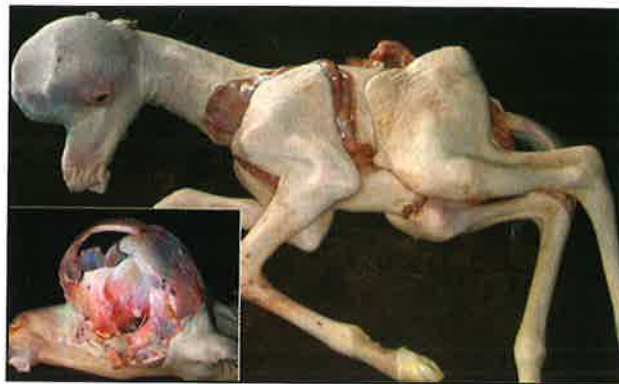


Fig. Hydrocephalic foal having enlarged sac on head

ISSAR AWARDS

G.B. SINGH MEMORIAL AWARD

- ☞ The award is annual and is for the best scientific article published by a life member of ISSAR below 35 years of age in a foreign or Indian Journal.
- ☞ Only the first Author should be below 35 years of age and he is awarded a silver medal and a certificate.
- ☞ The application should be forwarded along with five copies of the article and proof of age and life membership certificate to the General Secretary before 31st March of the year.
- ☞ Application form may be obtained from the General Secretary, ISSAR.