

REVIEW

FOAL IN MARE – A DVD INSTRUCTIONAL GUIDE Editors : Jan Govaere, Katrien Martens, Aart de Kruif; Co-Editors : Bet C van der Weijden, Tom A.E. Stout, Grant S. Frazer, Jean Francois Bruyas.



The Department of Reproduction, Obstetrics and Herd Health, Faculty of Veterinary Medicine, Ghent University, Belgium has brought out a DVD on Foaling – the process of delivery of a foal by the pregnant mare, the contents of which are a true service to animal welfare. It is not just the students of veterinary science or the teaching faculty in the discipline of Obstetrics and Gynaecology who will be benefited by viewing the DVD and making use of it as an educational aid. The common man in general and the animal lover in particular will be touched by the qualitative production of this presentation which depicts love, care and a passionate understanding of the equine species. An observant animal handler will be able to improve his skill and knowledge by going through the salient features of this display. By keeping away the intricate, biochemical, hormonal, nutritional mechanisms and focusing on the art of management of the mare and the neonate foal, the DVD appeals to a much wider audience. The Present Editor of IVJ was contacted for a review of this DVD by its Editors after obligingly sending the DVD for a second time to the Editorial Office of this journal. The contents were examined in depth and the results are wonderfully revealing. The sequence of events commencing from initial stages of foetal development has been described by voice and video. The video display is for a period of one hour. The three dimensional animation enriches the presentation. The voice overs are in English, French, Spanish, Dutch and Italian. The texts are in Netherlands and Japanese.

Foaling is a complicated physiological process. The developing foetus tries to adjust to its uterine environment while the pregnant mare attempts to cope up with the strenuous and laborious period of gestation culminating in the successful delivery of the foal. The foetus initially lies on its back in the uterine horn and after five months, starts growing rapidly with a gain of 500 g every ten days. From 150 to 180 days, the foetus becomes four-fold in size and by 240 days, it attains the size of a lamb. At 270 days, the foetus comes to fully occupy the main body of the uterus with its hind legs still in the pregnant horn of the dam. Torsion of the umbilical cord is not an uncommon occurrence in the pregnant mare and it does not

hinder blood or urine flow under normal circumstances. The amnion in the pregnant mare is not attached to its chorio-allantois. Thus, when the foetus moves within the amnion or along with the amnion within the allanto-chorion, torsion of any of the two portions of the cord may occur.

At the time of foaling, the most important thing to be ascertained is the foal's presentation, position and posture in relation to the mare so that any intervention if needed, can be undertaken.

With animated depiction, the DVD proceeds to describe the stages of labor, the first stage commencing from the start of uterine contractions to propel the foetus towards the dilating cervix and passing through the stages of rupture of chorio-allantois and release of allantoic fluid. When the second stage becomes imminent, the tail of the mare is gathered and tied and the cardinal signs of the mare such as switching of tail, alternate lying down and getting up, occasional urination, defecation and rolling from side to side are noticed. The mare thus gets actively ready to deliver the foal. In the second stage, when the foetus moves into the pelvic canal, the mare lies down to keep the level of uterus along the line of pelvic cavity to enable easy delivery. Abdominal muscles strain to help the uterine contractions for the easy expulsion of the foetus. With one foot forward followed by the head and the other foot, the foetus offers minimum width to pass through the birth canal. After the expulsion of the front feet, head, neck and thorax, the amniotic sac ruptures and the foal struggles to breathe. The amniotic sac sometimes needs to be manually ruptured by hand. With continuing uterine and abdominal contractions, the foal is completely delivered. The third stage is truly the stage of uterine involution following foaling. The behavior of the neonate foal and the post-partum mare is vividly depicted. The umbilical cord is snapped as the mare attempts to get up. The passing of meconium, the importance of feeding colostrum to the young foal and expulsion of placental membranes are narrated. The placenta is usually expelled in an hour. A delay beyond six hours calls for intervention by a vet. The delay is often due to the fast adherence of the placenta to the anterior of the non-pregnant horn.

The DVD illustrates various conditions of dystocia which include lateral deviation, ventral retroflexio and dorsal retroflexio of the head, carpal, shoulder flexions, closed shoulder and elbow posture, dog sitting position, foot nape, anterior dorso-iliac and anterior dorso-ventral positions. All these need corrective manipulations. Quick delivery of the foetus to avoid snapping of the umbilical cord before completion of foaling in cases of posterior presentation is aptly underlined.

Caesarian interventions under conditions of transverse presentations and hock/hip flexions and various conditions necessitating partial or full foetotomy have been appropriately covered. The caesarian procedure right from general anaesthetic induction, intubation, maintenance approach through ventral mid line or paracostal route have been lucidly explained through video display. Accessory problems during and after foaling such as inversion or prolapse of the urinary bladder, rectal prolapse and uterine torsion have been briefly touched upon.

To sum up, the Faculty of the Veterinary Medicine, Ghent University, Belgium, especially, the Editors and Co-editors of this visual display accompanied by appropriate voice support need to be complimented for providing insights into the foaling mare in a simple, elegant, artful and educative manner. This DVD needs to be utilized by all veterinary and animal science educational and teaching institutions in India and it is hoped that more such illustrative visual aids must be developed to create a treasure house of knowledge relating to veterinary and animal sciences.

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