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Management of dystocia in The Netherlands

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Parturition in the horse is a rapid and violent event that, fortunately, usually progresses without serious complications. However, when dystocia does occur (approximately 5% of foalings) it is an emergency since it can rapidly become life-threatening for the foal and, in extreme cases, the mare. Indeed, if an equine delivery is not concluded within 45–60 min, there is a high risk of fetal hypoxia or death as a result of placental detachment and reduced function. In addition, violent straining by the mare can lead to significant trauma to the genital tract.

The major causes of dystocia in the horse are malposture of the fetal extremities as a result of their length and compounded by the limited space for manoeuvre within the uterus. On the other hand, feto-maternal disproportion (oversize) is a very uncommon cause of dystocia in the horse, with the notable exception of draught horses and miniature breeds.

In The Netherlands, the most common horse types are Warmbloods, Friesian horses and Shetland ponies, and there is also a significant Dutch/Belgian draught horse population. Since large stud farms are uncommon and the majority of broodmares foal ‘at home’, the situation differs markedly to that in the large Thoroughbred regions of the UK, USA and Australia. In particular, many mares are not monitored carefully around the time of expected foaling, and foaling may have been underway for some time before dystocia is recognised. In addition, transportation to a well-equipped equine hospital can be delayed by unavailability of suitable transport, or by a relatively long journey. As a result, in the majority of dystocias presented to Dutch referral clinics, the foal is dead on arrival and the veterinarian concentrates on minimising risks to the health or future fertility of the mare.

Since equine dystocia needs to be resolved rapidly, owners are generally instructed to seek assistance as soon as they suspect that parturition is not progressing normally. Initial assistance is usually provided by a local practitioner driving to the farm, because transporting the mare to a clinic is not possible. While waiting for the veterinarian, the client is advised to walk the mare to diminish straining. On arrival, the practitioner performs a brief general clinical examination followed, after thorough cleansing of the perineum, by an obstetrical examination. The obstetrical investigation is preferably performed on the standing mare, taking care that it does not suddenly lie down or otherwise harm the obstetrician. Adequate restraint and prevention of forceful abdominal straining can be difficult, but it sometimes helps to perform the investigation while walking the mare.

The initial obstetrical examination aims to rapidly assess the general situation. The first priority, especially in a referral clinic situation, is to determine whether the foal is still alive since this will influence subsequent decision making. Next the position, posture and presentation of the foal are determined. In the case of a mild postural abnormality, manual correction after repulsion of the foal followed by vaginal extraction is the preferred option. The foal is first pushed back into the uterus to create the space needed to reposition the affected extremity. If repositioning is hindered by heavy straining, then walking the mare, applying a twitch or sedation may help. If rapid correction of the malposition is not possible or dangerous to mare or obstetrician, the mare should be referred to a clinic even if this is not favourable for fetal survival. Administration of a uterine relaxant prior to transport should however diminish uterine contractions and might, thereby, prolong fetal survival.

If the foal is dead and only one or 2 body parts are malpositioned a partial (1–2 cuts) fetotomy to remove the abnormally positioned extremity(s) is often easier and quicker than repositioning. This is particularly true if malposture is a result of ankylosis of, for instance, a carpus or the neck. A partial fetotomy rarely requires any more restraint than mild sedation or uterine relaxation. However, if ankylosis of a joint is established it is important to consider that other joints may also be affected such that extracting the foal may still be difficult. In such cases, it may be necessary to progress to a total fetotomy under epidural anaesthesia or, if the clinician is not experienced at fetotomy or the mare is not sufficiently well behaved, a caesarean section. In a review of 102 dystocias treated by fetotomy at Utrecht University, 51 were resolved by partial fetotomy (1–3 cuts), 48 progressed to a total fetotomy and in 3 mares delivery had to be completed by a caesarean section. Of the 102 mares, 93 recovered to hospital discharge, although subsequent breeding performance was not followed up.

In the very large (e.g. draught) breeds, a caesarean section is not favoured because the mares appear to be more prone to serious post surgical complications. On the other hand, in the Friesian breed a high incidence of transverse fetal presentation is encountered and, since the fetal extremities are usually unreachable, caesarean section is the only option for effecting delivery. Fortunately, Friesian foals in transverse presentation survive surprisingly long after the onset of second stage labour; presumably because absence of fetal parts in the vagina means that straining is mild, but also possibly
because placental dehiscence in this breed is slow, as evidenced by the elevated incidence of retained fetal membranes.

Shetland ponies and miniature horses are also a special case since they are very susceptible to severe necrotic vaginitis and vaginal adhesions following heavy or prolonged vaginal manipulation. Complicated vaginal deliveries or fetotomy should therefore be avoided in these breeds, and a caesarean section is preferred even if the foal is already dead. Moreover, a C-section in a small pony is possible even in relatively primitive surroundings via a paracostal incision with the animal restrained in lateral recumbency using heavy sedation and local anaesthesia. Post surgical survival and subsequent fertility appear to be favourable in these breeds.

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