

Peripartum Asphyxia Syndrome (Dummy Foal)

Foal season is upon us – the hope of any horse owner with a mare ready to foal is to have a healthy, strong foal. There are a number of illnesses and complications that can affect a newborn foal such as failure of passive transfer, septicemia, neonatal isoerythrolysis, musculoskeletal disorders, and the condition referred to as peripartum asphyxia syndrome.

Peripartum asphyxia syndrome (PAS) is also known as neonatal maladjustment syndrome (NMS). The layperson terminology for this condition is 'dummy foal'. Foals affected display symptoms that include barking like dogs, seizures, aimless wandering, the lack of suckle reflex, as well as a loss of affinity for the dam. The clinical signs observed in 'dummy foals' are due to any event that impairs normal blood flow between the mare and foal prior to and/or during the birthing process. Asphyxia, which is the lack of oxygen delivery, can result from the interruption of umbilical blood flow, premature separation of the placenta (red bag), direct trauma to the chest during the birthing process, surges in blood pressure to the foal's brain due to the mare's contractions, and problems with both the fetus and mare such as infection.

There does not seem to be any specific incident that leads to the development of PAS in foals. It has been associated with rapid seemingly uncomplicated deliveries, dystocias, induced deliveries, cesarean sections, placentitis, premature placental separation, twinning, severe maternal illness, and prolonged pregnancies. Affected foals may behave and function normally for up to 24 hours and then become lethargic and non-responsive. The majority of the clinical signs observed in affected foals are neurologic disorders such as aimless wandering and non-responsive behavior. There are multi-systemic effects of asphyxia which affect the gastrointestinal tract, the kidneys, the heart, and lungs, as well as other systems.

Diagnosing PAS is based on clinical signs, laboratory findings/bloodwork, and ruling out other causes of neurologic disorders such as infections and birth defects. Treatment of foals with PAS is very intensive and critical. Therapy is complex because dysfunctions of the previously mentioned organ systems must be addressed as well as general supportive care for the critical patient. Treatment is focused on controlling seizures, providing adequate nutrition, correcting blood abnormalities, and providing respiratory support (oxygen therapy) if needed.

It is important that the foal is kept warm, hydrated, properly ventilated (oxygen) and that adequate immune transfer (colostrum and/or plasma) and nutritional requirements are provided. The equipment needed to monitor and support these foals as well as the 24 hour nursing care require a critical care unit to properly treat PAS. Given proper supportive care, it is shown that approximately 70% of asphyxiated foals recover and go on to perform as well as their counterparts.

In closing, PAS is a syndrome that requires early recognition of clinical signs to accelerate proper supportive care measures necessary for the foal's survival.

Contact Brandon Equine Medical Center at 813-643-7177 or email info@brandonequine.com with any questions regarding this topic.