MATERNAL BEHAVIOUR OF ARABIAN MARES

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Maternal care consists of a wide range of activities directed towards the young by the mother. Basically maternal care represents the mother's willingness to sacrifice her time, energy and resources towards the rearing and protection of her offspring. How does maternal behaviour in mare work? What do we know about the bonding process between the mare and her foal? How does the mare and foal recognize each other, remember each other and discriminate against other foals and mares? What are some of the factors that can interfere with this process and how can we manipulate it? Knowing the answer to some of these questions will help provide us with a knowledge base about maternal behaviour in mares that may aid us during the foaling season.

In mares, the activation of maternal behaviour depends on internal maternal factors related to parturition. The interactions between the mother and her progeny during postpartum period, known as the sensitive period, facilitate the maintenance of maternal responsiveness beyond the initial phase of activation by the factors internal to the mother. The ability of mothers to display a well-adapted maternal behaviour is also modulated by maternal experience gained at the first parturition. The care that the mother gives to her young is also important for the physiological and psychological development of the young. Beyond just the survival of the young, the quality of maternal care will influence the development of the young physiologically or psychologically, not only on the short term, but also on the middle and long term.
Bonding (Mare-foal bond)

Recognizing her foal as uniquely hers, a process called selective bonding, tends to evolve and strengthen over two to three days. It is based mainly on olfactory recognition, as well as other indicators. Once the foal is born, the mare will begin to lick him. The licking has two functions: first, it dries off the foal and stimulates the blood supply to the skin. Second, the mare begins to taste and smell the foal. In addition, both mare and foal will respond to one another’s vocalizations, usually soft nickers. Suckling is also important here, as the mare is rewarded by the relief of pressure in her udder and the foal receives its first meal. It was found that in the first two to three days, a mare is more likely to accept another foal as hers, but once the bonding process of frequent touching and smelling has taken place, she will reject other foals.

Suckling behaviour

It is important that the foal suckle as soon as possible. However, it is not so urgent that the foal needs to be helped to find the udder. Some mares may seem to be pushing the foal to the teat area, but usually the greatest help the mare can give is to stand still and allow the foal to find her. The mare will also contract her belly in a wincing motion, which may have something to do with milk let down and also makes the udder more obvious to the searching foal. As little interference as possible during this time is recommended. Even if you will be imprinting the foal, wait for an hour or so, until the foal has had that all-important first meal of immunoglobulin-rich colostrum. If the mare is disturbed before the baby suckles, the bonding process may be impaired.

Guarding behaviour

Very quickly, the mare will show a tendency to keep her body between the foal and any perceived threats. At the same time,
the foal tends to put the mare’s body between himself and anything unusual. Close contact is maintained for the first few weeks with the foal generally found within 10 feet of the mare.

**Abnormal Maternal behaviour**

Inadequate or abnormal mothering behaviour of mares is, thankfully, relatively rare. However, when problems do crop up, the issue is urgent. The abnormal behaviour usually occurs immediately after parturition, but in some cases can emerge after one or several days of normal behaviour. Abnormal maternal behaviour is more common in first-time mothers and there is a slight chance that there is a genetic predisposition in certain bloodlines, however, mares often become better mothers with experience. So, if you have a maiden mare, especially if she is of a nervous or excitable nature, ensuring her first foaling is a calm and safe experience will improve her chance of becoming a good mother.

**Nursing problems**

This is probably the most common aberration in maternal behaviour. It isn’t usually a rejection of the foal, but a reluctance to have it nurse. It typically occurs in mares with udder swelling and sensitivity to touch in the udder area. It is largely preventable by getting the mare used to having her udder handled before she foals. If she gets really swollen, she may even need to be milked to relieve the pressure. If the mare still objects to the foal nursing, mild restraint of the mare and/or nursing chute should solve the problem. If the foal is repeatedly prevented from nursing, it may be well conditioned not to try again.

**Over-protectiveness**

Some mares become aggressively protective of their foals, to the point of being dangerous to humans or other animals. They
may even accidentally injure their foals in the rush to get themselves between the foal and a perceived threat. If the foal is crushed against a wall or trampled, it may be seen as an attack, but there are differences in the injuries sustained. The intensity of the protectiveness usually subsides after a few days, but in some cases may persist through weaning.

**Lack of interest/ambivalence**
This absence of bonding and protective behaviour is often seen in sick, weak or medicated mares and/or foals, or in mares and foals that have been separated or overly handled at birth – for example, a mare that has had a difficult birth or a foal that has been withheld from the mare for various reasons. According to Kiley-Worthington, in “The Behaviour of Horses”, there is an increase in the number of these types of “rejections”, especially in large breeding operations, mostly due to increasing manipulation and interference. Isolating mares from other horses can also contribute to the problem.

**Fear of the foal**
Some mares can appear to be afraid of their own foals. They seem not to recognize them as horses even, and attempt to escape the foreign object in their stalls. Although they can become accustomed to the presence of the foal, as they would any other strange object, they never truly bond with their offspring and will avoid the foal’s attempts to nurse.

**Foal rejection**
True foal rejection is very rare, but life-threatening to the foal. The dam may bite, lift, shake and toss the foal against the stall wall or a fence, or stamp on it and pin it to the ground. The savage behaviour often follows one or more days of seemingly normal mothering and, so far, no one has determined the cause. If a foal has a bite mark on the crest or withers; it will not be an isolated
incident. There are often multiple broken bones as well. The only solution is separation of the mare and foal.

**Foal stealing**
This is a rare, but interesting behaviour problem in which an expectant mare (usually within one or two days of foaling) tries to “adopt” another mare’s foal. Once she gives birth to her own foal, she usually loses interest in the stolen foal, but at that point, the youngster mat not be re-accepted by his own dam.