Title: Cesarean Section in the Mare: 82 cases (2001-2011)
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Introduction

Cesarean section in the mare is most commonly performed as an emergency procedure for the resolution of dystocia when vaginal delivery or fetotomy are not considered possible or appropriate. On occasion, it is utilized as an elective procedure when factors are identified that would make vaginal delivery undesirable.

Materials and Methods

The medical records of mares presented to Scone Equine Hospital for dystocia or elective cesarean section between 2001 and 2011 were reviewed. Mares who received a cesarean section for resolution of dystocia or as an elective procedure were included in the current report. Information retrieved included mare age and parity, distance travelled for surgery, outcome (survival to discharge), duration of fetal membrane retention and days in hospital. Data regarding foal status at time of surgery and survival to discharge was also collected. Post-operative data on thoroughbred mare fertility was collected from the Australian Stud Book.

Results

In a predominantly thoroughbred population (77/82), the survival to discharge rate for mares undergoing emergency surgery was 76% (55/72). On average, these surviving mares spent 8 days in hospital (range = 3 to 25 days) and retained their fetal membranes an average of 39 hours (range = 0 to 125 hours). Thirteen percent of all foals delivered during an emergency procedure survived to discharge (10/76). The majority of foals were not alive at the time of surgery (42/64; 68%). Mares travelling <25km for emergency surgery produced 6 foals that survived to discharge (6/33; 18%) whereas mares travelling >25km produced 4 live foals (4/38; 11%). All 6 mares that underwent elective cesarean section survived to discharge, with 5 of 6 foals (83%) also surviving to discharge. Thirty seven mares were bred the same season as surgery, with a live foaling rate of 38% (14/37). Forty two mares were bred the season after receiving a cesarean section, with a live foaling rate of 50% (21/42).

Relevance to Clinical Equine Practice

This report shows that the prognosis for mare survival following an emergency cesarean section is good but the chances of a successful outcome for the foal are poor. Foal survival rates for mares travelling further for surgery may be reduced because of a greater delay in delivering the foal. Minimizing the time between chorio-allantoic rupture and delivery of the foal has been shown to improve foal survival rates. Earlier referral for a cesarean section will improve the chances of a foal surviving to discharge. While the live foaling rate for mares bred the same season as surgery is significantly reduced, it improves in the season following surgery. Prolonged attempts at vaginal delivery should be avoided to maximize post-operative fertility, as it is thought that trauma caused during these attempts is more detrimental to future fertility than the surgery itself. The results of elective procedures were good and consistent with previously published reports.