CESAREAN SECTIONS IN ALPACAS AND LLAMAS: 25 CASES (2000-2008)

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Introduction: We hypothesized that C-section can be performed successfully under field conditions without the need for general anesthesia. The purpose of this study is to describe the indications for cesarean section in alpacas and llamas and to describe the maternal and neonatal survival rates.

Methods: Medical records from two veterinary medical teaching hospitals of llamas and alpacas having had a Cesarean section were reviewed.

Results: There were 25 cases of dystocia that resulted in cesarean section, which included 21 alpacas and 4 llamas. The mean age of dams was 6 years and the average weight at presentation was 92.7kg. Of 16 dams for which reproductive history was recorded, 12 (75%) had previously been pregnant. Of those 12 dams, 58.3% had a previous reproductive problem including abortions/stillborns, c-sections, and dystocia. Physical examination findings were a mean rectal temperature of 37.4°C, mean respiratory rate of 43 bpm, and mean heart rate of 79 bpm. Reproductive examination revealed uterine torsion in 43.5% of dams, inadequate cervical dilation in 17.4%, abnormal fetal position or presentation in 17.4%, fetal death in 13%, and fetal-maternal disproportion in 8.7%. Of 23 cases for which specific anesthesia protocol was recorded, 26% underwent general anesthesia and 74% were done using local anesthesia with (88%) or without (12%) sedation. Specific surgical approach was recorded in 24 cases of which 87.5% were done through a left flank incision and 12.5% via a ventral midline incision. Surgical complications were noted in 30% cases including one each of premature tearing of the umbilical cord, tearing of the uterine wall, incisional hernia, septic peritonitis, post-operative uterine abscess, incisional dehiscence, and incisional edema. Other complications were noted in 24% dams and included vaginal tears, vulvar swelling, metritis, retained placenta, pregnancy toxemia, hyperglycemia, and uterine prolapse. At the time of cesarean section, 33% of the crias were stillborn. Of the 16 crias that were alive, 81.3% survived. All dams were discharged from the hospital alive, but one llama died 14 days after discharge because of septic peritonitis.

Discussion: Based on the results of this study, Cesarean section is an effective method of resolving dystocia in CAMELIDS. The survival rate for dams is expected to be good and that of crias guarded.