

## **Clinical signs and outcomes of beef cattle undergoing cesarean section because of dystocia**

### **ABSTRACT**

**OBJECTIVE:** To characterize signalment, clinical signs, reproductive history, surgical management, and outcomes of beef cattle undergoing cesarean section because of dystocia at a veterinary teaching hospital.

**DESIGN:** Retrospective case series with nested cohort study.

**ANIMALS:** 173 beef cattle admitted to a veterinary teaching hospital from 2001 through 2010 that underwent cesarean section because of dystocia.

**PROCEDURES:** Medical records were reviewed and information collected on cattle signalment; reproductive history; cause of dystocia; anesthetic protocol; surgical management; number, sex, and body weight of calves delivered (alive or dead); perioperative treatment; duration of hospitalization; and discharge status. A questionnaire regarding postoperative fertility was mailed to all owners, and owners who did not respond were contacted via telephone.

**RESULTS:** Overall mortality rate for calves was high, with 37.6% (62/165) of calves delivered dead or dying  $\leq$  24 hours after cesarean section. Mortality rate was higher for female versus male calves and for calves from dams with signs of labor for  $\geq$  3 hours versus  $<$  3 hours before hospital admission. Overall mortality rate for dams was low, with only 10 of 161 (6.2%) dams failing to survive for  $\geq$  21 days after hospital discharge. Postoperative fertility rate was acceptable, with 75% (44/59) of dams that were rebred after cesarean section giving birth to  $\geq$  1 live calf.

**CONCLUSIONS AND CLINICAL RELEVANCE:** Cesarean section was a clinically useful method for resolving dystocia in beef cattle, providing a high dam survival rate and an acceptable postoperative fertility rate. Beef cattle producers should seek veterinary assistance whenever clinical signs of dystocia are noticed, preferably within 6 hours after onset of parturition.