Cesarean Section in a Bongo Antelope

PREGNANCY was tentatively diagnosed in a 2½-year-old nulliparous Bongo antelope (Boocerus eurycerus) on Feb. 4, 1972, and she was separated from the herd on Feb. 26, 1972. Mammary gland development and vulvar swelling was noticed in early March and the position of the fetus was cranioventral in the abdomen. Signs of labor and impending parturition occurred on March 25, 1972. During a 5-hour period, the antelope strained and alternately stood or laid down. A fetus could be balled deeply ventral in the abdomen. Following this episode, the antelope became quiet and further signs of labor were not observed. During the next 6 months the abdomen continued to enlarge, with the fetus remaining deep in the abdomen, creating a pot-bellied appearance.

Attempts to monitor fetal heartbeat in early May, using an ultrasonic doppler device and electrocardiography, were unsuccessful due to maternal cutaneous movements. Results of blood analysis at 60-day intervals, starting May 10, 1972, were considered normal. Concurrent rectal examinations revealed normal fetal membranes, but at no time could fetal movement be detected. The fetus was located ventrally, well below the pelvic brim.

On Sept. 14, 1972, amniocentesis was performed and 20 ml. of red amber fluid was obtained. Results of bacteriologic culture of the fluid were negative; chemical analysis revealed protein, 3.9 Gm./100 ml.; total cell count, 9.6/cmm.; and sugar 25 mg./100 ml. Differential staining of cellular components indicated a full-term fetus.

Normal parturition was considered unlikely because of the estimated disparity of size of fetus and maternal pelvic canal and the position of the fetus deep in the abdomen. In addition, the red color of the amniotic fluid was a grave sign, suggesting fetal death.1

Surgical intervention was scheduled to coincide with the end of the gestation period resulting from the last possible breeding. The antelope was given estradiol (Estra, Burns Pharmaceuticals) to sensititize the uterus

to posterior pituitary hormone (Pitocin, Parke-Davis). Food and water were withheld for 24 hours and 12 hours, respectively, prior to induction of anesthesia via face mask, using halothane (Fluothane, Ayerst Laboratories, Inc.) and nitrous oxide. Atropine sulfate was given intramuscularly. After a cuffed endotracheal tube was inserted (with the aid of a long-bladed laryngoscope), nitrous oxide was discontinued and anesthesia was maintained with halothane (1–1.5 % concentration) during the remainder of the surgery.

The antelope was positioned in left lateral recumbency on a partially inflated inner tube and an infusion of warmed lactated Ringer's solution was started. An incision was made through the right abdominal flank muscles. When incising the peritoneum, the uterus was inadvertently opened due to its adherence to the abdominal wall. The uterine opening was enlarged, exposing a dead fetus. Approximately 15 L. of amber amniotic fluid, a full-term male fetus, and loosened placenta were removed. The uterus was light gray, avascular, and nonpliable. The endometrium was debrided, rinsed with sterile physiologic saline solution, and five 1-Gm. boluses of tetracycline were placed in the uterus. The uterine incision was closed with a double layer of continuous absorbable sutures.

The adhesions between the uterus and peritoneum were separated manually around the incision site. Thirty units of posterior pituitary solution were administered intravenously, but without effect on uterine tone or motility. Aqueous penicillin (7 million units) was placed in the peritoneal cavity and the skin incision was closed in routine manner.

Postoperative care consisted of systemic antibiotic therapy for 5 days. Dexamethasone (Azium, Schering Corporation) and antihistamine (Benadryl, Parke-Davis & Company) were given during surgery and repeated on the second postoperative day. Injections of estradiol were given every 2 days for 1 week. During this period, rectal temperature was normal.

The antelope's abdominal muscles regained tone about 2 to 3 weeks after surgery. Rectal examination at 120 days after surgery revealed the left uterine horn was slightly enlarged but within the pelvic brim. The right uterine horn (previously gravid) was enlarged and flabby, and extended over the pelvic brim. It was adhered to the right abdominal wall by bands of fibrous tissue.