

## **Misoprostol treatment of dystocia due to incomplete dilatation of the cervix in a cow: a case report**

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### **علاج حالة عسر الولادة بسبب توسع عنق الرحم الجزئي في بقرة باستعمال مسوبروستول: تقرير حالة**

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#### **الخلاصة**

يصف هذا التقرير حالة عسر ولادة بسبب توسع عنق الرحم الجزئي في بقرة وعلاجها لأول مرة باستعمال مسوبروستول.

#### **Introduction**

Incomplete dilatation of the cervix is a common cause of dystocia in cattle (1). Cervical priming refers to dilating and softening of the cervix in the first stage of labor is a gradual process (2). Incomplete dilatation in multiparous cows may be associated with uterine inertia caused by hypocalcaemia; in these animals, the response to calcium therapy is rapid (1). Misoprostol an analogue of prostaglandin E<sub>1</sub> is widely used to ripen the cervix and/or initiate labor at term in human and it is more widely used to control postpartum bleeding (3,4). PGE<sub>1</sub> has never been used in bovine obstetrics to dilate the cervix in dystocia cases due to incomplete dilatation of the cervix. This report describes the first successful use of misoprostol (PGE<sub>1</sub>) for the treatment of incomplete dilatation of cervix in a local breed cow.

#### **History and clinical signs**

The cow involved was 7 years old brought by the owner to the clinic of the College of Veterinary Medicine, University of Mosul and he claimed that his animal had dystocia 24 hours ago. The owner said that he had brought a veterinarian to treat the cow. The veterinarian administered estradiol benzoate and calcium

borogluconate, and he advised the owner to bring the cow to the clinic of the College of Veterinary Medicine, if the cow did not deliver or no fetal fluid was escaped to perform cesarean section. On clinical examination, the cow was at or near term, as denoted by mammary changes and ligamentous relaxation in the pelvis. The cow was in a standing position and restlessness due to abdominal discomfort, coupled with few feeble abdominal contractions but no progress was made. Vaginal examination indicated that the cervix was dilated about 2 fingers and the fetal membranes were intact.

#### **Treatment**

The perineum and adjacent areas were washed with soap and water and disinfected with lugol's iodine. Obstetrical hands covered with long plastic gloves and lubricated with obstetrical lubricant was inserted in the birth canal, then 1 mg (5 tablets) of misoprostol (Cytotec, Searle Pharmaceuticals Ltd, UK) were inserted in the partially dilated cervical canal. Every 10 minutes the cervical canal was examined. After 45 minutes the cervix was completely dilated and the fetal parts were easily examined. The fetus was alive with anterior presentation, dorsal position and downward deviation of the head between the forelimbs and adjacent to the sternum with

bilateral shoulder flexion as posture. The posture was corrected by repelling the fetus and lifting the muzzle up into the pelvis. The forelimbs were located and manipulated and the obstetrical hand was advanced down the limb toward the carpal joint. The right limb was grasped and brought up into the carpal flexion position, and the foot was cupped in the hand and brought carefully up into the pelvis. A calving rope was placed around the fetlock and this procedure was performed to the left limb. Traction was applied manually with two assistants. After delivery the uterus and the birth canal were checked for signs of damage and hemorrhage. The cow and her calf were doing well. The cow was treated with 60 IU of oxytocin as single injection and 3 million IU procaine penicillin G with 3 g of dihydrostreptomycin IM daily for 5 days. After one week

the owner reported, that the cow and her calf were doing well.

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