PARTIAL FETOTOMY FOR THE DELIVERY OF A SCOLIOTIC-ANKYLOSED FETUS IN A COW

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ABSTRACT

A case of dystocia due to scoliotic-ankylosed fetusin a cow and its vaginal deliverythrough partial fetotomy is reported.

Key words: Scoliotic-ankylosedfetus, Fetotomy, Vaginal delivery, Cow

INTRODUCTION

Scoliosis is a condition with lateral curvature of fetal spine rather than a straight line (Ghuman *et al.*, 2009). Multiple ankylosis is the congenital disorder characterized by multiple joint contractures (Swinyard and Bleck, 1985). The present case report depicts fetotomy operation for the successful vaginal delivery of scoliotic-ankylosed fetus in acow.

CASE HISTORY AND OBSERVATIONS

A full term pregnant cow in its third parity was brought to the University Veterinary hospital with the history of severe straining for the last 12 hours and the rupture of water bags. Vaginal examination revealed a fully dilated cervix with moist birth canal. The fetus, without any reflex, was in anterior longitudinal presentation with lateral deviation of head and both the anterior limbs were extended into the birth passage. Further vaginal examination of fetus revealed that joints of the anterior limbs were not movable.

TREATMENT AND DISCUSION

Following epidural anesthesia (10 ml, 2% Lignocaine HCl), birth passage was well lubricated using sodium carboxymethyl cellulose gel (SD-Fine Chem Ltd). After assessing the fetus, fetotomy wire (Bovivet, Denmark) loop was placed around the right anterior limb offetus and limb was amputated (Fig.). Thereafter, same procedure was repeated for the left anterior limb (Fig.). Traction was applied on the head and the fetus was delivered per vaginally. The complete fetal membranes were removed immediately. The cow was discharged with the routine prescription of antibiotics and supportive therapy.

The body weight of affected calf was 30 kg. Bahr *et al.*, 2004 reported that growth of the fetus affected with multiple contractures of joints is usually retarded.Gross examination of the deformed fetus classified the calf to be suffering from scoliosis syndrome (Bahr *et al.*, 2004; Ghuman *et al.*, 2009). Term scoliosis was used as the vertebral column of the fetus was rigidly curved laterally and the vertebral joints of thoracic/lumbar region were immovable (Figure).

Scoliotic-ankylosed fetus is believed to be due to decreased fetal movements following maternal or fetal neurogenic and myopathic disorders caused by duplication of motor neuron gene, congenital muscular dystrophies, fever during pregnancy or foraging of pregnant animals on plants containing toxic alkaloids (Swinyard and Bleck, 1985; Iannuzzi*et al.*, 2003).These multiple factors affect central nervous system (CNS) or cause muscle degeneration, thus leading to loss of

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muscle mass with imbalance of muscle power at the joints and collagenous thickening of the joint capsules termed as joint fixation (Swinyard and Bleck, 1985). Scoliosis accompanies ankylosis when CNS and spinal cord is malformed and was noticeable in cases of the epidemic attributed to AINOV virus infection in calves (Tsuda*et al.*, 2004).In summary, for saving the future fertile life of the dam, fetotomy can be done successfully for the per-vaginum delivery of scoliotic-ankylosedfetus.

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Fig. : Scoliotic-ankylosedcow fetus showing lateral curvature of spine, ankylosed limbs and position of fetotomy cuts on both the anterior limbs.