DYSTOCIA DUE TO DICEPHALIC MONSTER IN A COW

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ABSTRACT

A case of successful per-vaginal delivery of a dicephalus monster foetus is reported in cow.

Key words: Cow, Dystocia, Dicephalus, Epidosin, Monster

INTRODUCTION

Fetal anomalies and monstrosities are collectively common causes of dystocia in bovines (Shukla et al., 2007). Monstrosity is a disorder of the development that involves various organ and systems which can cause great distortion of the fetus (Kuldeep et al., 2018). Anomalous duplication of germinal area in fetus marks into congenital fetal abnormalities, in majority of these cases cranial portion of fetus is found duplicated more frequently than caudal portion (Robert, 1971). Dicephalus is described as a defect of incomplete separation of heads resulting from twinning in animals (Long, 2009). Conjoined twins are more common in cattle than in other domestic animals. This paper reports a case of dystocia caused by a dicephalic monster in a cow and it's successful per vaginal delivery.

CASE HISTORY AND OBSERVATIONS

A six years old cow with eight months of pregnancy and in fourth parity was brought to Veterinary Clinical Complex, Hisar. The animal was presented with the complaint that in spite of continuous straining for last 36 hours there was no progression to the stage of parturition. Per vaginal examination revealed insufficiently dilated birth canal, an abnormal fetus in anterior longitudinal presentation with two heads joined at neck region. The water bags had already been ruptured.

TREATMENT AND DISCUSSION

On the basis of history and gynaecological examination, the case was diagnosed as dystocia due to a dicephalus monster. The animal was treated initially for dilation of cervix by administration of Inj. Epidosin® (Valethamate bromide; TTK) 10 ml IM, Inj. Pregheat® (Estradiol benzoate; Virbac India) 2 ml IM, Inj. Mifex® (Calcium-magnesium-boro-gluconate; Novartis India Limited) 450 ml IV, Inj. Avil® (Chlorpheniramine maleate; MSD Animal Health) 10ml IM and Inj. Dextrose Normal Saline (Dextrose 5%; Fresenius Kabi) 5 litres IV. Six hours after the treatment, the cervix was found one and half hand dilated. Cervix was massaged with luke warm normal saline (1L NSS and 10 ml Epidosin) and liquid paraffin in order to further soften the cervix. After sufficient dilatation, both the head were pulled simultaneously using eyehooks; once head were out of cervix, chain was applied on both the fore limbs. Then simultaneous traction was applied through eye hook and chain in order to remove the fetus successfully. After removal of foetus, placenta was removed gently by manual traction. Supportive therapy consisting of Inj. Mifex® (Calcium-magnesium-boro-gluconate; Novartis India Limited) 450 ml IV, Inj. Evatocin® (Oxytocin;Neon laboratories)10ml in one litre of Dextrose Normal Saline (Dextrose 5%; Fresenius Kabi) IV and Inj. Cefwell forte® (Cefoperazone plus sulbactum ; Macwell pharma) 4.5 gm IM. Treatment advised for five days, comprising of Inj. Cefwell forte® (Cefoperazone plus sulbactum; Macwell pharma) 4.5 g IM, Inj. Avil® (Chlorpheniramine maleate; MSD Animal Health) 10 ml IM, Inj. Megludyne® (Flunixin meglumine; Virbac Animal Health India Pvt Ltd.) 20 ml IM, Inj. Tcee® (Ascorbic acid; Titanic Pharmaceuticals Pvt. Ltd) 30 ml IM, Inj. Metrogyl® (JB Chemicals; Metronidazole 2500mg/ 500 ml) IV and Inj. Dextrose Normal Saline (Dextrose 5%; Fresenius Kabi) 3 litres IV. The delivered fetus had two fully developed heads (dicephalic) on single neck (monauchenos) (Fig. 1). Since the case was brought delayed to the clinics, putrefaction was also marked in the fetus. Moreover, placental cotyledons were necrotic and oedematous.

Embryonic duplications are deformity due to abnormal duplication of the germinal area giving rise to fetuses whose body structures are partially duplicated (Kumar et al., 2014) All conjoined twins are monozygotic in origin and represent incomplete division of one embryo into two components, usually at some time during the primitive streak stage (Ahmed et al., 2015) Conjoined twins may be caused by any number of factors, being influenced by genetic and environmental conditions. It is presently thought that these factors are responsible for the failure of twins to separate after the 13th day of fertilization (Srivastva et al., 2008) and many congenital anomalies are essentially unknown; however, the important known causes are prenatal infection with a virus, poisons ingested by mother, vitamin deficiency (A and folic acid), genetic factors and/or combination of

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these factors (Jones and Hunt, 1983). In the present case, uneventful recovery of the dam was owed to the small size of fetus which expedited per vaginally, otherwise in such cases fetotomy or caesarean section is the last choice.

Fig.1: Dicephalus fetus with putrefaction

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