CONGENITAL ANOPHTHALMIA WITH CONGENITAL ANURY AND ATRESIA ANI DEFECTS IN A CROSSBRED JERSEY CALF

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SUMMARY

A rare case of congenital anophthalmia associated with congenital absence of tail and atresia ani defects in a jersey cross bred calf is reported. The calf was alive for 48 hours after birth and died subsequently

Keywords: Atresia ani, Congenital anophthalmia, Crossbred calf

Congenital anophthalmia is defined as complete lack of eye and its associated structures by birth. In cattle, the congenital anophthalmia is associated with other defects like congenital absence of tail and atresia ani (Leipold and Huston, 1968). The anomalous calves were born at full term and had normal vigor and appetite, but were slightly small in size (Moritomo et al., 1995). Achondroplastic caprine foetal monster with congenital anury, atresia ani and scrotal hernia was described by Debasis and Mousumi (2009). Perosomus acaudatus (Anury) in a local non-descript milch cow was described by Debasis and Mousumi (2010). In the present case report, congenital anophthalmia associated with congenital atresia ani and anury was reported.

A day old crossbred jersey calf was brought to Veterinary Clinical Complex, College of Veterinary Science, Rajendranagar with a history of weak, debilitated body condition, inability to suckle milk and inability to pass faeces. Calving history of the dam revealed that previously born calves were normal. Physical examination of the calf revealed bilateral congenital anophthalmia, as both the eyes were absent with well developed eyelids (Fig. 1), partial anodontia with one pair of incisors partially embedded in gums (Fig. 2), absence of tail Perosomus acaudatus (congenital anury) and absence of anus i.e. atresia ani (Fig. 3). Neither the vulva nor the scrotum was observed in the perennial region, however a vulva like fissure was noticed at the ventral aspect of the pelvic cavity (Fig. 4) indicating ventral malpositioning of vulva or genital tract, however the internal organs were not examined as the calf was alive. Anus and vulva were absent and the calf was passing urine and faeces from navel region indicating remnant of placenta and improper development of urogenital system. Hence surgical correction of atresia ani was not advised and follow up revealed that, the calf died after 48 hours of birth.

The frequency of bovine anophthalmia and microphthalmia is unknown but appears to be rare. In a study of 921 calves born with bilateral or unilateral apparent anophthalmos of 231,540 births (giving a prevalence of 0.39%), the authors found that 21% of the animals lacked tail or had other severe sacral abnormalities (Williams, 2010). Several calves showed the doming of the head, dorsal malpositioning of anus and vulva and the cleft palate (Moritomo et al., 1995). Anophthalmia and caudal vertebral anomalies such as taillessness or wry tail were morphologically examined in ten Japanese brown calves (Moritomo et al., 1995). It may be possible that calves were exposed to teratogen at the critical time of optic organogenesis and notochordal formation during early embryogenesis (Moritomo et al., 1995). Similar case of anury associated with atresia ani was recorded in a camel calf by (Anwar and Purohit, 2012) and in a male buffalo

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Fig.1: aAbsence of eyes (anophthalmia) in Jersey cross bred calf. 2: Imperfect teeth or partial anodontia in Jersey cross bred calf. 3: Anury and atresia ani in Jersey cross bred calf. 4: Vulva like fissure on ventral aspect in Jersey cross bred calf
calf by Vala et al. (2017) in recent publications.

REFERENCES


