ATRESIA ANI IN BUFFALO: A CASE REPORT

H.D. Lau

ABSTRACT

A congenital atresia ani syndrome in a crossbred Mediterranean female buffalo calf is reported. The anomaly was characterized by abnormal anorectal formation. Necropsy examination revealed swelling and enlargement of the rectal ampulla. The rectum was connected with the vaginal vestibule and the faeces passed throught the vulvar opening. The cause of this malformation is probably an autosomal recessive gene.

INTRODUCTION

Congenital defects may affect a single structure or function, involve several body systems, or combine structural and functional alterations (Leipold et al., 1972).

Anal atresia is a congenital defects encountered in the newborn baby of all species. This defect is regarded as an autosomal recessive gene. According to Hamori (1983), in prenatal life the anal membrane invaginates to form the anal fossa. If rupture of the anal membrane does not take place, the rectum may develop normally but it will then end blindly immediately beneath the skin. In this way arises the anomaly known as atresia ani.

Atresia ani is a common defect in lambs and is lethal to males but is compatible with life in most female, because of a rectovaginal fistula (Dennis and Leipold, 1979).

This abnormality has been described in the feline (Broek et al., 1988), in swine (Putte et al., 1984), in the equine (Brown et al., 1988), in the ovine (Fischer and Adinata, 1957) and in the bovine (Singh et al., 1989). In buffalo, atresia ani was recorded by Chaudhry (1974) cited by Chaudhry (1978). According to this author, retention of meconium was the rule in atresia ani. In cases of impaction of the meconium, it was closely packed in the colon and rectum. The affected calf exhibited symptoms of straining, elevating the tail and assuming an attitude for defecation.

No information about atresia ani in Brazilian buffaloes seems to be available in the literature. The present study was undertaken to report the anomaly in buffaloes in Brazil.

CASE HISTORY AND COMMENTS

A 30-day-old female buffalo showed marked signs of distress manifested by tenesmus. Clinical examination revealed the absence of the anal orifice and protrusion of the anal region caused by collection of faeces (Figure 1).

The prognosis for surgical correction was not good due to the poor local conditions for this procedure. Necropsy examination revealed swelling and enlargement of the rectal ampulla. The rectum was connected with the vaginal vestibule and faeces passed through the vulvar opening. Faeces and urine passed separately. This result is in agreement with those cited by Dennis and Leipold (1979) who reported that atresia ani is not lethal in females. The hypothesis for the aetiological cause of this malformation was an autosomal recessive gene.

REFERENCES

Broek, A.A.M. Van Der., Else, R.W. and Hunter, M.S. (1988). Atresia ani and urethrorectal fistula in a kitten. Journal of Small Animal Practice. 29(2): 91-94.

Broun, C.M., Parks, A.H., Mullaney, T.P., Sonea, I., Stickle, R.L. (1988). Bilateral renal dysplasia and hypoplasia in a foal with an imperforated anus. Veterinary Record. 122(4): 91-92.

Chaudhry, N.I. (1978). Common disease problems in buffalo calves. Pakistan Journal of Science. 30: 120-126.

Humid .Tropic Agricultural Research Center (CPATU), Post- Box 48, Belem, Para, Brazil

Dennis, S.M. and Leipold, H.W. (1979). Ovine congenital defects. Veterinary Bulletin.49(4): 233-239.

Fischer, H. and Adinata, M.M. (1957). Atresia ani - a new lethal factor in sheep. Hemera Zoa. 64: 98-103.

Hamori, D. (1983). Constitutional Disorders and Hereditary Diseases in Domestic Animals. Budapest, Elseviers Scientific Publishing Company.

Leipold, H.W., Dennis, S.M. and Huston, K. (1972). Congenital defects of cattle: nature, cause and effect. Adv. Vet. Sci. Comp. Med., 16: 103-150.

Singh, P., Sharma, D.K., Sing, S., Behl, S.M. and Chandna, I.S.(1989). Polymelia with atresia ani in a cow calf. Indian Journal of Veterinary Surgery. 10(1): 62-64.

Putte, S.C.J. Van Der. and Neeteson, F.A. (1984). The pathogenis of hereditary congenital malformations of the anorectum in the pig. Acta Morphologica Neerlando-Scandinavica. 22(1): 17-40.

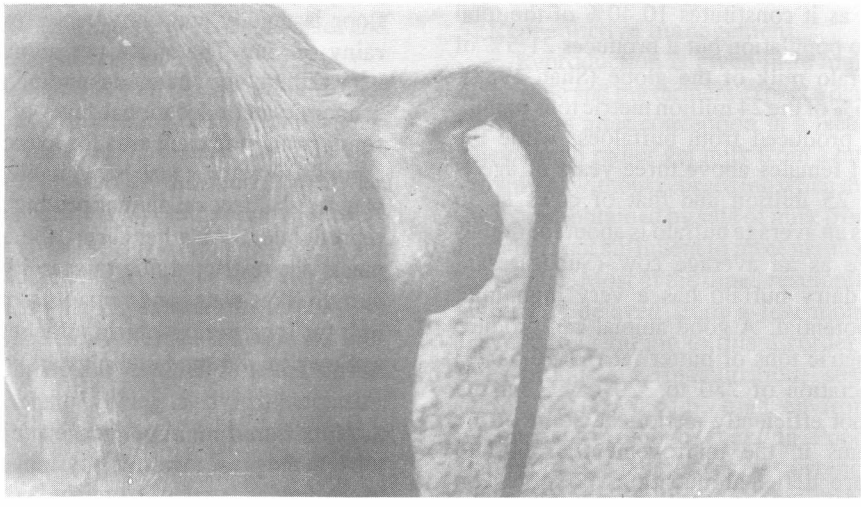

Figure 1. Aspect of atresia ani in buffalo a calf