

Original Research Article

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Surgical Correction of Congenitally Fused Vulva Labia in A Cross Bred Heifer

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ABSTRACT

Keywords

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An 18 month old cross bred heifer was brought to Veterinary Teaching Clinical Complex showing estrus behavior with congenitally fused vulvular labia. Two small opening of approximately 8mm and 2mm in diameter were observed at the dorsal and ventral commissure of vulva respectively. Surgical correction of the vulva with subsequent artificial insemination of the heifer was successfully accomplished.

Introduction

Congenital defects present at birth (Leipold and Dennis, 1986) not only reduce the value of calf (Rousseaux, 1994) but its early mortality may reduce maternal productivity. Various factors responsible for producing such abnormalities may be genetic, environmental and combinations of the both are more widespread (Roberts, 1971; Rousseaux, 1994). Congenitally fused labia syndrome is a rare occurrence in the animals and can be defined as a variable occlusion of the labia majora by connective tissue (Wedi *et al.*, 2011). This syndrome was described in heifers by Oettle and Coubrough (1985), Balasubramanian *et al.*, (1991) and recently by Tiwary *et al.*, (2016). In the present case report, successful

correction of congenitally fused labia was done and conception after artificial insemination in a crossbred cow was witnessed.

Case History

A crossbred heifer of 18 month old was brought to the Veterinary Teaching Clinical Complex, SKUAST- Jammu, in estrus, with a history of congenitally fused labia (Fig. A). On gross examination two small openings one on ventral commissure with a diameter of 2mm and one at dorsal commissure with 8 mm in diameter was found (Fig. A). The animal was urinating normally through the dorsal orifice and the opening was sufficient for the passage of artificial gun. Per rectal

examination of the animal's genitalia revealed normal size of reproductive tract and tonic uterine horns. A scissor with blunt ends was inserted through the opening at dorsal commissure, directed downward revealed a pouch at the ventral surface due to congenital closure of vulvar lips.

Treatments and Discussion

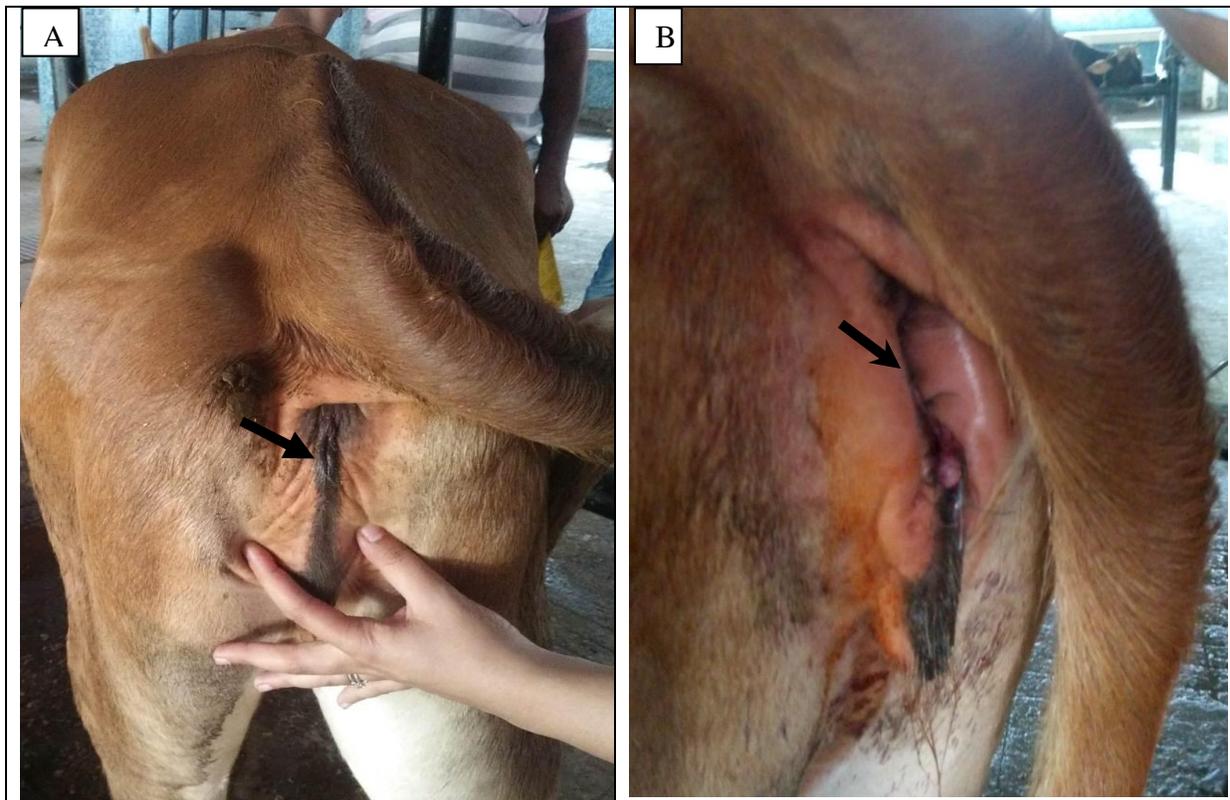
For surgical procedure, the animal was restrained in a traxis and caudal epidural analgesia was achieved after administrating 5ml of lignocaine hydrochloride injection (Xylocaine 2% Astra Zeneca, Bangalore) aseptically between sacro-coccygeal joint. The surgical site was prepared aseptically and painted with povidone iodine.

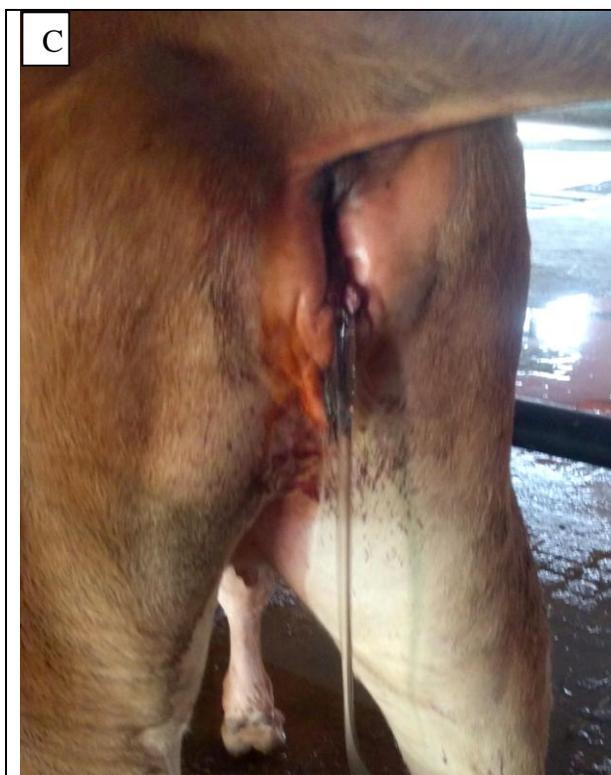
Scissor with blunt ends was inserted in opening at dorsal commissure and directed downward and opened to stretch the vulva to avoid any irregular incision on the vulvar mucosa and downward longitudinal incision

was given to separate the vulvar attachments (Fig. B). The mucosa of each vulvar lip was sutured with subcutaneous vulvar skin using catgut 1/0 by continuous suture pattern (Fig).

Post operatively, the animal was administered enrofloxacin @ 5mg/ kg b wt. intramuscularly (Inj. Enrodec, Neovet, Intas Pharmaceuticals Ltd., Ahmedabad) daily for six days, 4 ml meloxicam (Inj. Melonex power, Neovet, Intas Pharmaceuticals Ltd., Ahmedabad) intramuscularly once daily for 3 days and advised for topical liquid povidone iodine and flyrepellant spray (D'Mag, Neovet, Intas Pharmaceuticals Ltd., Ahmedabad) application three times daily. Smooth recovery was observed after 7th day.

Twenty days post-surgery, the heifer showed spontaneous standing heat and was inseminated successfully (Fig. C). Animal did not show heat in next three months after insemination and found positive for pregnancy per-rectally.





A. Figure showing congenitally fused vulvular labia with small dorsal opening (arrow) in cross bred heifer

B. vulvular lips after surgical correction in cross bred heifer (arrow)

C. Cross bred heifer showing estrous signs after 20 days of surgical correction of congenitally fused vulvular labia.

The causes of congenitally fused labia are still unknown but genetic, environmental or a combination of both is considered as most common causative factors of congenital defects. However, enzymatic defects or prenatal drug exposure (Craighill, 1993) and consumption of certain types of synthetic steroids in early pregnancy (Seller and Bobrow, 1987) are the forerunners of external and internal congenital anomalies of the female reproductive tract. Thus in the present study it was concluded that the heifer was suffering from congenitally developed fused labia without any reproductive abnormality with normal estrous behaviour and normal genital tract on per rectal examination. Surgical correction and Insemination resulting to conception is possible in cases of congenitally fused vulva.

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