

PROLAPSE OF THE PREPUCE IN BULLS AND RAMS

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Prolapse of the Prepuce has been reported in certain breeds of cattle and occasionally in the ovine species. Most of the workers agree that the condition has an hereditary origin and is seen in bulls possessing a more pendulous sheath. This report records three cases of Prolapse of Prepuce in Fat tail sheep and three in cattle. Surgical correction of this condition has been discussed. Suggestions have been made to control this affliction in Ovine and Bovine species.

INTRODUCTION

Prolapse of the prepuce is characterized by protrusion of the mucosa of the sheath downward exteriorly, with no tendency to spontaneous retraction. The condition has been reported frequently in the bovine and occasionally in the Ovine species (Frank 1964). Bos-indicus cattle such as Santa Gertrudis, Brahman, Zebu or their crosses were most commonly affected. Among Bos taurus cattle it was mainly seen in beef breeds such as Angus and Polled Hereford cattle and rarely in dairy cattle (Roberts 1971, Garcia 1969, Arthur 1964). The condition so far has not been recorded in buffalo-bulls. Most of the workers, agree that the condition has an inherited trait and is seen in bulls possessing a pendulous sheath, a large preputial orifice, a relaxed preputial membrane and Penis. (Roberts 1971 and Hafez 1968). The defect appeared more often when animals were subjected to stress (Hafez 1968). Various methods of treatment have been advocated. They ranged from application of simple first aid measures in early stages, to a "reefing Type of operation to excise the indurated prolapsed tissue where prepuce was more extensively and chronically involved. (Romane 1960, Arthur 1964, Donaldson and Aubrey 1960, Cardwell 1961, and Walker 1967).

In the present report, six cases of Prolapse of prepuce (three in rams, two in Sahiwal bulls and one in a cross bred draft bullock), are recorded. These cases were brought to the Veterinary Clinics University of Agriculture, Lyallpur during the year 1969-73.

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HISTORY AND CLINICAL FEATURES

Sheep :—The three fat tail sheep affected with the prolapse of prepuce were apparently in good health. All these rams were 1-2 years of age. History revealed that the eversion of preputial mucosa was observed two days after shearing.

Cattle :—In case of cattle the age ranged from 4-12 years, and were in good condition. One case in Sahiwal bull was brought three days after the occurrence of the prolapse. The other Sahiwal bull (Nanna Fig. I) belonging to University of Agriculture, Artificial Insemination Centre and the Bullock (Fig. ii) were brought after the condition has been present for more than a month. The prolapsed portion was enlarged, fibrosed and infected. In early stages the everted mucosa was shiny, moist and light pink in colour. The mucosal folds were clearly visible. The prolapsed sheath lining, in two cases was soiled with dirt and dried after exposure to environment. It was infected, ulcerated and fibrosed. This resulted in Phimosis in these two badly affected, chronic cases.

TREATMENT AND RESULTS

The bulls were given treatment in standing position in a stall while the sheep were restrained on ground without much difficulty. No anaesthesia was given to the sheep but the bulls were sedated with Chloral Hydrate by mouth



Fig. I Prolapse of Prepuce in Sahiwal Bull

and topically Lignocaine Hydrochloride¹ was applied to the prolapsed part. The preputial hair were clipped and the prolapsed mucosa was thoroughly washed with a weak solution of ²Chlorhexidine gluconate. In bulls a bucket full of this solution was held under the abdomen to immerse the prolapsed prepuce for 20 minutes in it. Luke warm water provided fomentation to the affected mucosa. It improved circulation to the affected area. The lesion was allowed to dry and ³Chlorhexidine cream was applied liberally to the affected region. Gentle massage was done to replace the prepuce back into the sheath. The prepuce was held in normal position by placing 2 to 3 interrupted Catgut sutures across the sheath orifice. The sutures were removed after 48 hours. Penicillin was given for 3 to 4 days. This treatment was successful in one Sahiwal Bull and 3 fat tail sheep.

In sahiwal Bull (Nanna Fig i) the conservative treatment was not successful and slaughter was advised. The crossbred bullock (Fig. ii) was sedated

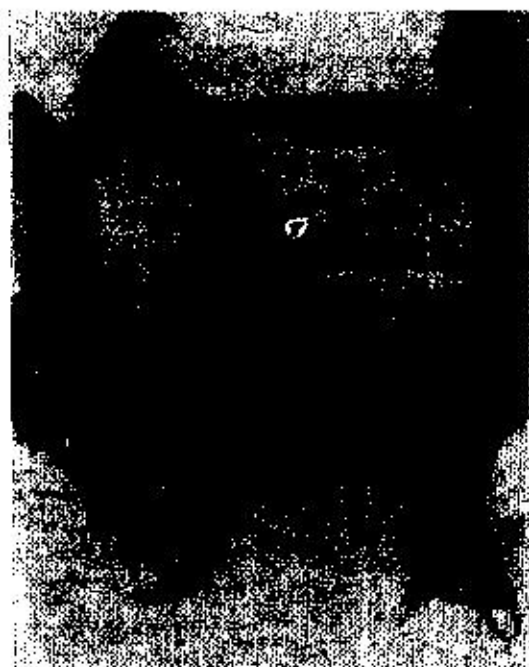


Fig. ii Prolapse of Prepuce in a Crossbred Bullock

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1. XYLOCAIN : 4% Topical solution commercial product Burrows Wellcome and Co. Pakistan Ltd. Karachi.
 2. SAYLON : Commercial product. Imperial Chemical Industries Ltd. Winslow, Cheshire, England.
 3. HIBITANE : Commercial product. Imperial Chemical Industries Ltd. Winslow, Cheshire, England.

with chloral hydrate. The prolapsed prepuce was anaesthetised by local infiltration of Lignocain⁴ Hydrochloride 2% solution with Adrenaline. Operation was done to excise part of the prolapsed tissue which was undergoing necrosis and gangrene. Animal made an uneventful recovery and surgery produced the desired effects. The animal was discharged from the hospital, and it resumed normal farming duty.

DISCUSSION

In many bulls-prolapse of the prepuce is quite temporary and is immediately followed by retraction of the mucosa. There appears to be an individual predisposition to this condition. In prolapse prone-animals a time approaches, when the degree of preputial protrusion is just too much to be reduced normally. This initiates a vicious cycle. According to Arthur (1964) "the pathogenesis follows the pattern that gravity interferes with venous drainage resulting in edema. The increased weight induces further protrusion of the membrane and eventually most of the preputial membrane everts. The laxity of the subcutaneous tissue of the prepuce results in tremendous enlargement. The everted sheath lining undergoes thrombosis, infarction, infection, ulceration, resulting in fibrosis and formation of adhesions". At this stage reduction of the prolapsed mucosa is impossible, coitus is painful and difficult. In most cases the veterinary advice was sought when the condition became chronic. The prolapsed mucosa was easily soiled on filthy grounds and was very prone to injury. It is suggested that these cases should receive immediate attention at the first suspicion of the prolapse and they should be castrated in conjunction with other treatment as the condition is genetically predisposed. These bulls should be regarded undesirable for breeding programme. The author is in agreement with *Lagos and Fitzhugh (1970)* and *Garcla (1969)*, in recommending that males for Artificial Insemination should be selected possessing a less pendulous sheath, small preputial orifice and a stronger retractor penis muscle. This is particularly more important in Sahiwal animals since these bulls possess pendulous sheaths. Moreover this breed constitutes the major dairy animal of the country. This step will gradually decrease the frequency of this trait in the cattle wealth of the country. In fat tail sheep it seems that in addition to hereditary predisposition trauma may be an important factor in aetiology. Trauma is inflicted at the time of shearing, resulting in Posthitis and finally in prolapse of the

4. XYLOCAIN: 2% with Adrenaline Commercial. Burrows Wellcome and Co. Pakistan, Ltd.

propuce. Apart from a careful breeding policy as suggested for bovine species, better shearing practices may be adopted to reduce its incidence in this species.

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