

قسم الجراحة
كلية الطب البيطري - جامعة أسيوط
رئيس القسم : أ.د/ عاطف عزت بلبل

بعض عيوب القضيب الخلقية في الماعز

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عيوب القضيب الخلقية سجلت في ١٢ ذكر ماعز بلدي دخلت مستشفى كلية الطب البيطري في أسيوط أثناء الفترة من ١٩٨٣ - ١٩٨٦ ومن الاثنى عشر حالة التي سجلت ٩ كانت تمدد خلقي في مجرى بول القضيب وحالتين لجام القضيب الدائم وحالة واحدة كان فيها القضيب موجود خلف كيس الصفن • تعرضت كل هذه الحالات للدراسة والعلاج الجراحي •

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SOME CONGENITAL ANOMALIES OF THE PENIS IN GOAT
(With 5 Figures)

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(Received at 28/12/1986)

SUMMARY

Congenital anomalies of the penis were recorded in 12 male goats of native breed presented to the Clinic of the Faculty of Veterinary Medicine, at Assiut during the period from 1983-1986. Out of the 12 cases, 9 were congenital dilatation of the penile urethra 2 were persistent penile frenulum and one case was post-scrotal situation of the prepuce and penis. All cases were subjected for study and surgical treatment.

INTRODUCTION

Congenital anomalies of the penis were discussed by WALKER (1980) in cattle, VAUGHAN (1974) in horse and HENDERSON, *et al.* (1985) in dog. The available literature lacks any information about such anomalies in goats.

The aim of the present work is to study some congenital anomalies of the penis in goats.

MATERIAL and METHODS

Congenital anomalies of the penis in goats were recorded during the period from 1983-1986, in the Clinic of the Faculty of Veterinary Medicine, at Assiut. 12 cases were recorded; 9 were congenital dilatation of the penile urethra, 2 persistent penile frenulum and one case was post-scrotal situation of the prepuce and penis. Each case was subjected to full clinical examination and the possible surgical treatment was performed. In addition samples were taken for histopathological examination for confirmation of the diagnosis.

RESULTS

Congenital Dilatation of the Penile Urethra:

Congenital dilatation of the penile urethra was diagnosed in 9 male goats of native breed. The age of the affected animals was from one week to 3 months. The cases were presented to the clinic with a history of discomfort at urination and presence of elongated swelling at

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F.M. MAKADY, et al.

the ventral aspect of the penis (Fig. 1). Palpation revealed a painless, fluctuating swelling extending for a variable distances from in front of the scrotum to about 2 cm. caudal to the free portion of the penis. The swelling was covered with healthy skin. Urine was forcibly voided when pressure was exerted on the swelling. The preliminary diagnosis was dilatation of the penile urethra. The swelling was drained through a needle and then exploratory surgery was performed under the effect of local infiltration anaesthesia using 1% procaine hydrochloride. A 4 cm. longitudinal incision was made through the wall of the swelling. Exploration and inspection of the resultant cavity revealed free connection between the swelling and the normal parts of penile urethra anteriorly and posteriorly (Fig. 2). The excess skin and mucous membrane were removed and permanent fistula was created. Microscopical examination of a small piece from the excised wall of the swelling revealed normal urethral structure (Fig. 3) and the skin covering the urethra and its underlying tissues were completely normal.

Persistent Penile Frenulum:

Persistent penile frenulum was diagnosed in 2 male goats of native breed. The age of the affected animals was 12 and 13 months and were presented with a history of discomfort during erection of the penis. Clinical examination of the penis revealed presence of an attachment of the prepuce at one point along the ventral midline of the free portion of the penis (Fig. 4). Surgical correction was quite simple. The area was prepared and the frenulum was clipped with scissors. No post-surgical care was required.

Postscrotal Situation of the Penis:

Clinical examination of a 4 months old male goat revealed abnormal postscrotal situation of the prepuce and penis. The direction of the penis was backward towards the tail of the animal (Fig. 5). This congenital anomaly could not be corrected surgically.

DISCUSSION

The findings of the surgical exploration in addition to that of microscopical examination for the cases of dilatation of the penile urethra revealed that the swelling is a urethral dilatation. This is ensured by the absence of cellulitis, urine scalds and fistulation of the periurethral tissue and the covering skin. GOURLEY and VASSEUR (1985) reported that urethral rupture cause cellulitis, urine scalds and fistulation of the periurethral tissues. NICKEL and SCHUMMUR (1979) revealed that there is a well developed tunica albuginea coating the urethral groove, with the wall of which, it forms a strong tube around the urethra and corpus spongiosum. A matter that does not allow acquired dilatation of the penile urethra. Therefore, the detected urethral dilatation in the examined male goats might be attributed to congenital causes.

Urethral dilatation causes urinary tract infection by interfering with normal micturition, altering the urethral high-pressure zone and surface characteristics of the urothelium, altering urethral peristalsis and permit the ascending migration of bacteria from lower to upper parts of the urinary tract (GOURLEY and VASSEUR, 1985).

Detected persistent frenulum between the penis and prepuce of the examined male goats is considered to be a congenital anomaly. The age of the examined animals were 12 and 13 months old while ripening and separation of the ectodermal lamellae of the prepuce in goats must observed in 6 months (HAFEZ, 1975). We agree with ROBERTS (1971) that surgical correction of the persistent frenulum is important owing to the fact that it causes pain and discomfort during penile erection as well as leading to impotantia coeundi. Persistent frenulum in goats

ANOMALIES OF THE PENIS

exhibits the same signs and was handled in the same way as reported by WALKER (1980) in bovine.

REFERENCES

- Gourley, M.I. and Vasseur, B.P. (1985): General Small Animal Surgery. J.B. Lippincott Company, Philadelphia.
- Hafez, E.S.E. (1975): Reproduction in Farm Animals. 3rd. Ed. LEA and Febiger, Philadelphia.
- Henderson, R.A. and Dillon, A.R. (1985): The male genital system. In General Small Animal Surgery. Gourley, M.I. and Vasseur, B.P.J.B. Lippincott Company, Philadelphia.
- Nickel, R.A. and Schummer, E.S. (1979): The Viscera of the Domestic Mammals, 2nd., Ed., Verlag Paul Parey, Berlin and Hamburg.
- Roberts, J.S. (1971): Veterinary Obstetric and Genital Diseases, 2nd., Ed. CBS, India.
- Vaughan, J.T. (1984): Surgery of the male equine reproductive system. In the Practice of Large Animal Surgery. Volum II. Jennings, P.B.W.B. Saunders, P. 1083.
- Walker, D.F. (1980): Penile surgery in the bovine: Part III: Mod. Vet. Pract. 61-69.



(A)



(B)

Fig. (1 a&b)
Congenital dilatation of the penile urethra.



Fig. (2)
Surgical exploration of the dilated part of the penile urethra
(the probe is introduced into the normal part of the urethra)

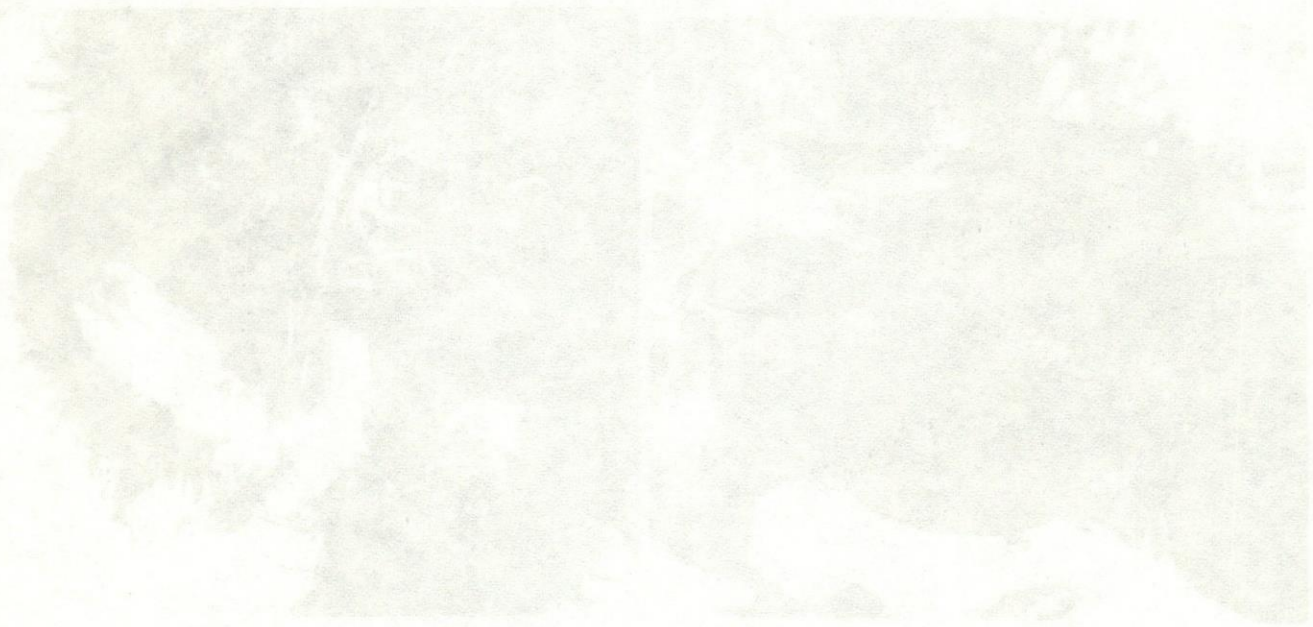




Fig. (3)
Normal structure of penile urethra covered by normal skin.
(H&E. X 16)



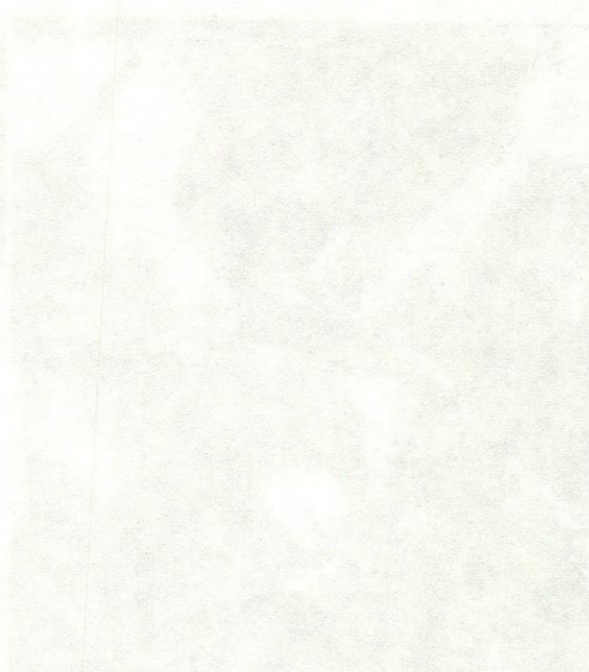
Fig. (4)
Persistent penile frenulum in male goat



Fig. (5)
Postscrotal situation of the penis and prepuce
in a male goat



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