

Summary

The urinary system disorders of ruminants constitute one of the most important problems which deserve serious consideration in the veterinary practice. Urolithiasis is considered to be relatively common syndrome in male ruminants. It constitutes one of the main problems facing fattening animal industry and it may lead eventually to the death of the animal.

The present study aimed at evaluation of some surgical techniques used for treatment of urine retention in ruminants. The study was divided into three parts:

1-Experimental study:-

This part of the study was conducted on 12 native un-castrated bucks for evaluation of different techniques used for treatment of urine retention in ruminants, age ranged from 18 to 24 months and of weight ranged from 25kg to 32 kg B.Wt. The bucks were randomly divided into four groups included urethrostomy, ventral urethrotomy, dorsal urethrotomy and tube cystotomy. These animals were observed for six months postoperatively.

Results revealed that urethrostomy having some disadvantages as urethral stricture, loss of breeding capability and the animals are considered as low quality animals. Dorsal urethrotomy was a good technique but need an experienced and skilled person due to the presence of the two dorsal veins. In tube cystotomy, cystitis and lower urinary tract infection were evident. Ventral urethrotomy showed stenosis of the urethral lumen.

2-Survey (Surveillance):-

This part was carried out in El-Fayoum and Beni-Suef governorates during the period from March 2011 to December 2013 on 373 male ruminants with complain of urine retention involved (238 cattle calves, 52 buffalo calves, 34 rams and 49 bucks) which belonged to private herds, cases admitted to veterinary clinics and faculty of veterinary medicine - Beni-Suef University.

In relation to season, results revealed that the highest incidence of obstruction in cattle calves, buffalo calves, ram and buck was during spring season (from 21 March to 21 June) (45%, 42.3%, 47.1% & 42.9%) respectively, followed by winter (21 December to 20 March) (25.2%, 28.8%, 26.5% & 26.5%) respectively, followed by summer (from 21 June to 22 September) (20.6%, 21.2%, 17.6% & 18.4%) respectively, and lastly fall season (from 23 September to 20 December) (9.2%, 7.7%, 8.8% & 12.2%) respectively. Concerning age, the incidence of urine retention was higher in animals younger than one year than those over one year.

Regarding the nature of obstruction, it was observed that in cattle and buffalo calves the highest incidence was ruptured bladder (70.2%), (59.6%), followed by cases with acute urine retention (18.9%), (23.1%), then cases with ruptured urethra (9.2%), (15.4%) and finally cases with urethral dilation was the lowest (1.7%), (1.9%) respectively. While in ram and buck, it was observed that the highest incidence was cases with acute urine retention (76.5%), (77.6%), followed by cases with ruptured bladder (14.7%), (16.3%), then cases with ruptured urethra (8.8%), (4.1%) and finally cases with urethral dilation was the lowest (2%) respectively.

With respect to the seat of obstruction, it was observed that the incidence of retention in cattle and buffalo calves was the highest at the level of sigmoid flexure (98.3%), (98.1%) followed by the glans penis (1.7%), (1.9%) respectively. While in ram and buck, the incidence was greatest at the level of urethral process (73.5%), (77.6%) followed by sigmoid flexure (26.5%), (22.4%) respectively.

3- Clinical Cases:-

The clinical cases subjected to treatment by the four methods discussed above in the experimental part

373 animals (including 238 cattle calves, 52 buffalo calves, 34 rams and 49 bucks) were subjected to surgical interference. Animals were exposed to the

appropriate surgical approach according to the nature of the affection, state of the urinary bladder and its general health condition.

Results showed that animals subjected to urethrostomy showed urine scalding and ulceration of the skin. While, some animals of those subjected to ventral urethrotomy suffered from ruptured urethra, they showed subcutaneous swelling at the ventral abdominal wall including preputal sheath which showed cellulitis.

Regarding the cases which were treated by dorsal urethrotomy, the results revealed that all cases were healthy and normal and none of them suffered from ruptured urethra. Concerning animals subjected to tube cystotomy, showed signs of lower urinary tract infection. Though choosing of the appropriate surgical technique depends on the animal status.