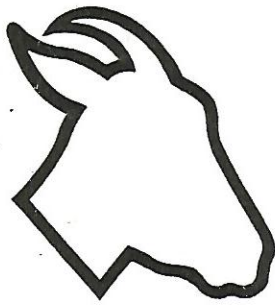


# Dairy Goat Practice



## retractor penis myotomy for catheterization in sheep and goats

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### Summary

Urethral catheterization was successful after retractor penis myotomy in a sheep and a goat, and there were no serious postoperative complications. Sexual behavior and libido were subsequently normal. Tranquilization and epidural nerve block were inadequate for catheterization.

Obstructive urolithiasis has economic importance in male ruminants, but urethral catheterization is prevented by anatomic barriers, the sigmoid flexure of the penis and the urethral vermiform appendix.<sup>1</sup> Therefore the treatment of urethral calculosis is primarily surgical via urethrotomy,<sup>2</sup> but postoperative complications may arise.<sup>3</sup>

The use of special procedures to permit passage of an obstructing urethral calculus has not received much attention. The aim of this study was to find a means for satisfactory catheterization in these animals.

To relax the retractor penis muscle, a buck aged 1.8 years and a 10-month-old ram were given, successively: (1) 0.5% Acepromazine maleate at 0.1 mg/kg IV; and (2) a lumbosacral epidural nerve block using 8 ml 2% lidocaine. Subsequently (3) retractor penis myotomy was performed through a 3-cm incision on the median raphe 5 cm ventral to the anus, to exteriorize the retractor penis muscles lying on the bulbocavernosus muscles of the penis. The 2 retractor muscles were double-ligated with 00 gut, to permit retrieving the cut ends, and severed

between the ligatures. After catheterization the muscles were apposed with 4/0 chromic gut and the skin closed.

Following each of the 3 procedures an attempt was made to pass a 2-mm x 48-cm polyethylene dog catheter, after partial excision of the urethral process.

### Results and Discussion

Complete urethral catheterization was accomplished after retractor penis myotomy, but not with the other 2 methods. Passage of the catheter was related to the greater straightening of the penis after retractor myotomy than that afforded by tranquilization or epidural block. The advantage of such surgery is that the penis and urethra are not bent or displaced appreciably during catheterization. There were no serious postoperative complications, and sexual behavior and libido following retractor penis myotomy were normal in both animals.

An additional anatomic barrier to catheterization, in the form of a dorsal diverticulum of the pelvic urethra just proximal to the point where the bulbourethral gland ducts open into it, has been described.<sup>4</sup> This, however, apparently does not interfere with easy passage of a catheter directly into the bladder after ischial urethrotomy.

In conclusion these results indicate that straightening of the penis and urethra via retractor penis myotomy makes catheterization possible in small ruminants. A catheter about 60 cm long would be suitable for larger animals. ■

### References

1. May: *The Anatomy of the Sheep*, 3rd ed. Univ of Queensland Press, 1970.
2. JAVMA 147:1327-1328, 1965.
3. JAVMA 147:1331-1339, 1965.
4. JAVMA 173:1584-1586, 1979.