

TABLE 2 Ratios of Sialic Acid to Protein

| Dog | Total Plasma Sialic Acid to Total Plasma Protein (mg/g) | Gamma Globulin Bound Sialic Acid to Gamma Globulins (mg/g) |
|-----------|---|--|
| 1 | 9.6 | 10.0 |
| 2 | 9.3 | 8.9 |
| 3 | 9.3 | 7.2 |
| 4 | 9.0 | 6.7 |
| 5 | 9.4 | 6.7 |
| 6 | 9.2 | 10.0 |
| \bar{X} | 9.3 | 8.3 |
| S.D. | 0.2 | 1.58 |
| S.E.M. | 0.08 | 0.6 |

Discussion

The data in tables 1 and 2 presents normal values.

With future study sialic acid may prove to be useful in clinical pathological diagnosis in disease conditions in which sialic acid concentrations increase over normal concentrations. It also may be shown that sialic acid is an intricate part of the body defense mechanism or is associated with the body defense mechanism.

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Feline Urethral Obstruction

By

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Introduction

Urethral occlusion due to urinary calculi or mucous plugs is a serious and fairly common problems of the male cat. Surgical treatment of urethral obstruction cases usually involves removal of the obstruction and relief of urine retention. Methods commonly used to achieve this include: irrigation of the urethra, retrograde passage of metal or plastic catheters, use of

alligator forceps, or gentle expression of the urinary bladder through the abdominal wall. In many of these cases, the condition recurs within a short time and becomes chronic, or the obstruction cannot be removed by the above methods. This article reviews such a problem case and the surgical procedure used to correct it.

Case History

A male Siamese cat was presented to Valverde Animal Clinic, Corrales, New

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Mexico, in August of 1970. History revealed that the cat was retaining urine, straining, and crying. He was observed to be dull and anorexic. Urethral obstruction was diagnosed by palpation and failure of attempts to pass a catheter. Conventional methods failed to remove the obstruction. During these attempts, the cat was maintained by force feeding and aspiration of urine from the bladder through the flank. After repeated failure to remove the obstruction, it was decided that a urethral-colostomy would be performed (Bremer, 1959).

Surgery

Due to the toxic nature of the animal, ether was used to induce and maintain anesthesia. The animal was prepared for surgery and restrained in dorsal recumbency. A midline incision extending from the umbilicus to the brim of the pelvis was made. The distended bladder was lifted from the abdomen and emptied with a needle and expression. The descending colon was lifted from the abdomen. The urethra was ligated and severed about $\frac{3}{4}$ inch from the bladder. A puncture wound was then made into the colon at the level of the remaining urethral stump. A small bore piece of rubber tubing was passed through this colonic opening, into the colon, and out through the anus. The anal end of the tube was retained in place by a single vetaphil suture passing through the skin and the tube. The opposite end of the rubber tube was passed through the urethral stump and into the bladder. The urethral stump was then sutured to the opening in the colon by a series of simple interrupted 00 catgut sutures. The abdomen was closed routinely.

Postsurgically, the cat was placed on

antibiotics and improved for a short time. A few hours later the animal became toxic again. No improvement was seen after approximately two days. An exploratory revealed that one of the simple interrupted sutures had failed. A row of simple continuous 00 catgut sutures was added to assure closure of the urethral-colonic anastomosis. The abdomen was closed routinely.

Following the exploratory, the cat improved daily without incident. The fecal consistency was semi-solid for the first few days but became well formed after the first week. The skin suture holding the rubber tube and the rubber tube itself were removed after seven days. The cat was reported to be leading a normal life $2\frac{1}{2}$ weeks after surgical correction.

Summary and Conclusion

When urethral obstruction could not be removed by conservative means, a surgical anastomosis of the proximal urethra to the descending colon over rubber tubing was performed as a correcting measure. This method seems to be practical for problem cases of feline urethral obstruction. Care must be taken to avoid fecal or urinary contamination of the peritoneal cavity. The critical point in the procedure seems to be the effective joining of the urethra and colon. A series of interrupted Lembert sutures might be considered here. An ascending infection of the urinary system does not seem to be a complication. Similar procedures have been described by Howard (1959) and Gale (1962).

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