An anatomical study of pararectal cystotomy in geldings.

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Introduction

The pararectal cystotomy has recently been revived as a viable surgical option for the removal of cystic calculi in geldings. Historically this method was considered unacceptable, due to the frequent complication of inadvertent peritoneal penetration, resulting in septic peritonitis and grave consequences. To ensure success with this technique by maintaining the surgical field within the retroperitoneal space, an understanding of the anatomy is important. Our aim was to investigate, document and describe the relevant anatomy to assist clinicians with the pararectal cystotomy approach.

Methods and materials

Horses: 6 adult geldings; 3 clinical cases and 3 cadavers. The clinical cases had routine surgery without significant complication. Of the cadavers 2 were dissected in the standing position after uroliths had been placed into the bladder via a flank celiotomy. Surgery was done on one side of the anus and a concurrent anatomical dissection on the other side. The peritoneal cavity was explored via the flank, and the bladder and urethra examined after en bloc removal.

Results

A description of the anatomy of the pararectal cystotomy was documented with photographs and illustrations. This description will be presented. In two cystotomy incisions there was iatrogenic incision of the seminal vesicles.

Relevance to clinical equine practice

The pararectal cystotomy is a viable standing surgical technique for the removal of moderate to large cystic calculi in geldings. Care should be taken not to enter the peritoneal cavity, nor disrupt the ureters or seminal vesicles. Endoscopic guided cystotomy may prevent iatrogenic disruption of ureters and seminal vesicles. We cannot recommend this technique for use in stallions without further investigation.