

Use of automatic stapling device during castration to prevent (re) occurrence of inguinal hernia in horses with large vaginal rings.

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Introduction

Apart from laparoscopic techniques, closed sterile castration is most commonly used to prevent and treat inguinal hernias in horses with large vaginal rings. However, even after hand-sutured closure of the vaginal tunic, inguinal herniation may occur.

Objectives

The aim of this poster is to report and describe the use of an automatic stapling device (TA90 4,8 mm staple length, United States Surgical, USA) for vaginal closure during castration by inguinal approach of horses with large vaginal rings in order to prevent (re) occurrence of inguinal hernia.

Material and Methods

ANIMALS:

Four intact males (age ranging from 4 months to 18 years) with at least one enlarged vaginal ring (approximately 6-15 cm) with various conditions including transient or permanent non strangulated inguinal hernia, hydrocoele and testicular tumor presented to the Veterinary Teaching Hospital were included in this report

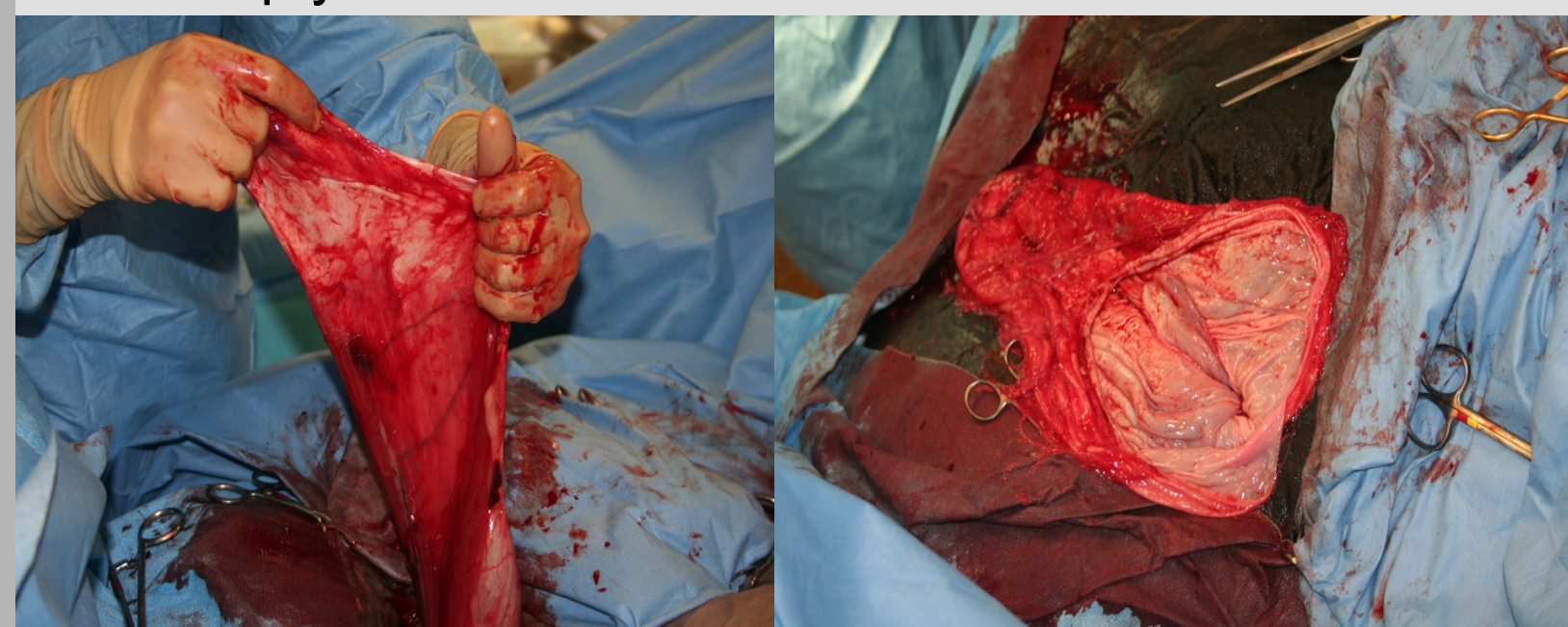


SURGICAL TECHNIQUE:

All horses were placed in dorsal recumbency and a routine inguinal approach castration was started



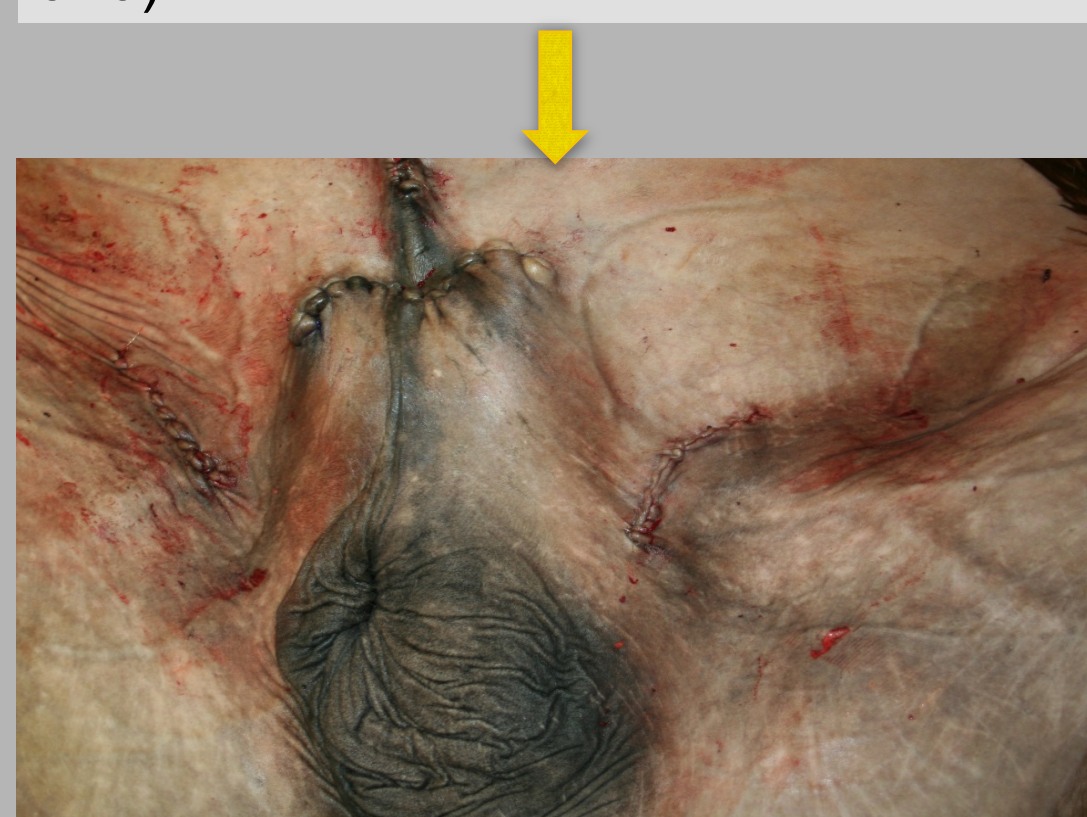
The testicle was removed leaving the enlarged vaginal tunic empty



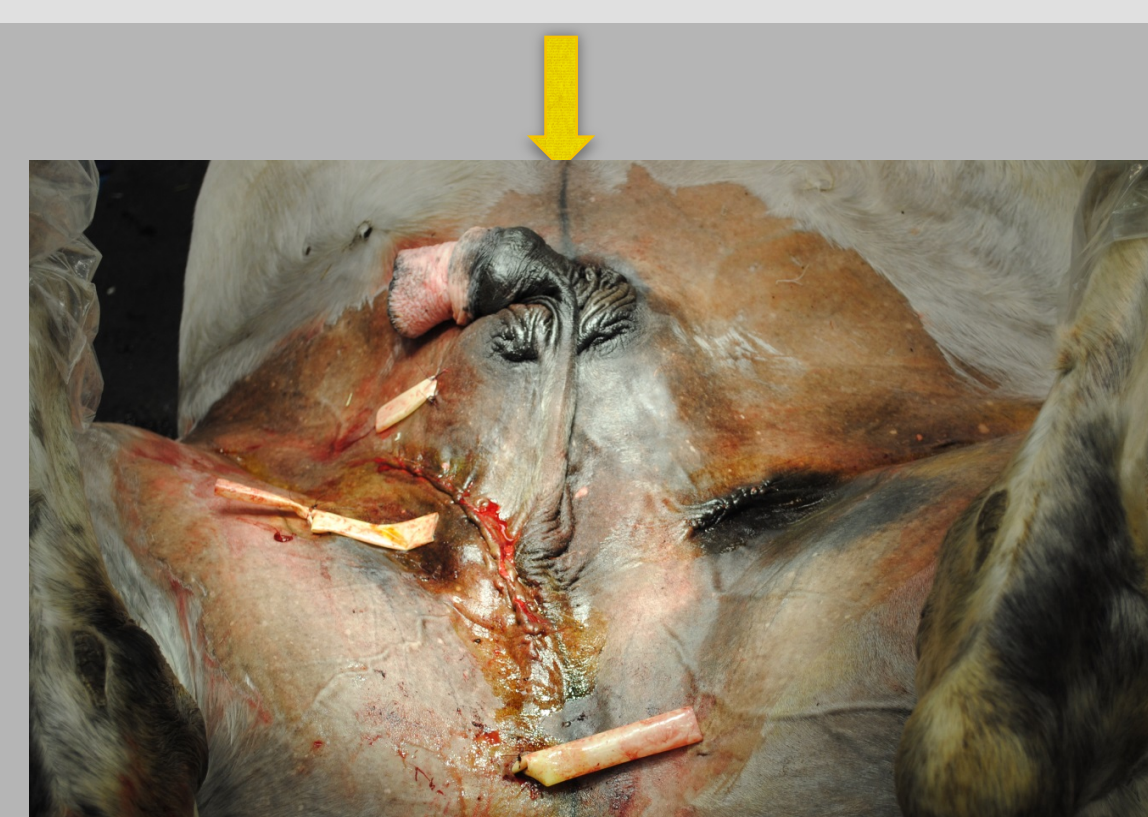
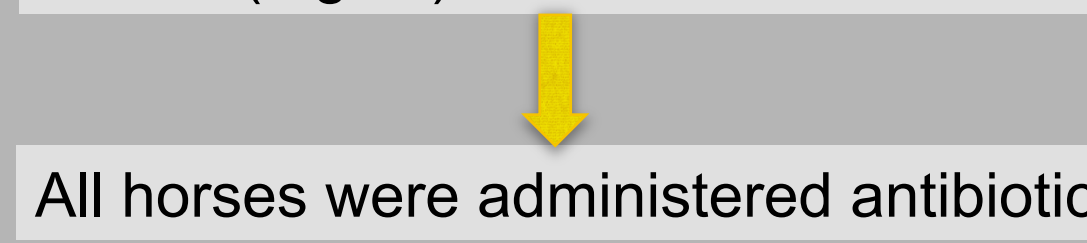
The most proximal part of the vaginal tunic was closed with the TA90 autosuture instrument



The exceeding part of the vaginal tunic was resected leaving approximately 5 mm and the staples were oversewn with a continuous suture pattern (2-0 poliglecaprone or poliglactin 910).



Subcutaneous tissues and skin were closed in a routine manner in all horses (Fig 11).



Subcutaneous drains were placed in case of the post-surgery very large dead space.

All horses were administered antibiotic and anti-inflammatory drugs perioperatively.



Results

No (re)occurrence of inguinal hernia was observed.

Postoperative period was uneventful or included minor complications like hematoma / seroma, which were successfully treated by small draining incisions in 2 cases. Due to a very large dead space (testicular tumor), one horse developed an abscess in the inguinal region that was successfully drained.

Long term follow up (5 months – 2 years): All animals returned to their previous use and no complication neither orthopaedic problem were reported in relation to the staples placement.

Discussion/ Conclusion

The TA90 method provides a good resistance to internal pressure, appears to be safe, fast and easy to perform and may therefore be an interesting alternative to laparoscopic techniques when castration is considered.