

*Conference Name: London International Conference on Research in Life-Science & Healthcare, 19-20 June 2024*

*Conference Dates: 19-Jun- 2024 to 20-Jun- 2024*

*Conference Venue: The Tomlinson Centre, Queensbridge Road, London, UK*

*Appears in: LIFE: International Journal of Health and Life-Sciences (ISSN 2454-5872)*

*Publication year: 2024*

*Genoni S., 2024*

*Volume 2024, pp. 84-85*

*DOI- <https://doi.org/10.20319/icrlsh.2024.8485>*

*This paper can be cited as: Genoni S. (2024). Intestinal functional end-to-end stapled anastomosis with endovascular gastrointestinal anastomosis staplers in small dogs and cats. London International Conference on Research in Life-Science & Healthcare, 19-20 June 2024. Proceedings of Healthcare and Biological Sciences Research Association (HBSRA), 2024, 84-85.*

## **INTESTINAL FUNCTIONAL END-TO-END STAPLED ANASTOMOSIS WITH ENDOVASCULAR GASTROINTESTINAL ANASTOMOSIS STAPLERS IN SMALL DOGS AND CATS.**

**Genoni S.**

*The Ralph Veterinary Referral Centre – Marlow, UK*

*[Stefano.genoni@gmail.com](mailto:Stefano.genoni@gmail.com)*

**Cinti F.**

*San Marco Veterinary Clinic and Laboratory – Padova, Italy*

**Pilot M**

*Langford Small Animal Hospital – Bristol, UK*

**Rossanese M.**

*Queen Mother Hospital for Animals, Royal Veterinary College – Hatfield, UK*

**McCready D**

*The Ralph Veterinary Referral Centre – Marlow, UK*

**Cantatore M**

*Anderson Moores Veterinary Specialists – Winchester, UK*

---

### **Abstract**

*Intestinal functional end-to-end stapled anastomoses (FEESA) are reported to have lower complication rates than hand-sewn anastomoses in dogs, however, the size of standard gastrointestinal anastomosis (GIA) staplers prevents their use in small*

patients due to the reduced intestinal diameter. Our study investigates the use of endovascular gastrointestinal (endo-GIA) staplers to perform functional end-to-end intestinal anastomosis in small dogs ( $\leq 10$  kg) and cats.

**Methods:**

Retrospective study approved by the Royal College of Veterinary Surgeons Ethics Review Panel (approval number 2022-144). The medical record databases of five referral hospitals were searched for patients that underwent an intestinal FEESA using an endo-GIA stapler. Dogs with a body weight  $\leq 10$  kg and cats were included. Patients were excluded if the available follow-up was less than ten days post-surgery, unless a major complication developed. Outcomes of interest for each patient included diagnosis, intraoperative complications, postoperative complications and survival time. Estimated survival was generated according to the Kaplan-Meier method. Differences between survival curves were tested by log-rank test.

**Results:**

Twenty-five patients (10 dogs and 15 cats) were enrolled in the study. The mean body weight was 5.18 kg (range 2.6 – 10 kg). Nine patients were diagnosed with neoplasia, 16 with non-neoplastic disease. The median follow-up was 126 days (range 18-896 days). No major complications were recorded. Five patients developed minor postoperative complications that included 3 superficial surgical site infections. Eighteen patients were alive at the end of the study, one was lost at follow-up. Of the 6 patients who died, none were dead because of complications from the intestinal surgery. Kaplan-Meier estimated survival was not reached. Survival was significantly longer for patients with non-neoplastic versus neoplastic disease ( $P = 0.005$ ).

**Conclusions:**

Our study suggests that the use of endo-GIA stapling devices is safe and effective to perform functional end-to-end intestinal anastomosis in small patients.

**Keywords:**

FEESA, Intestinal Anastomosis, Endo-GIA, Stapled Anastomosis.