Rectal prolapse is the protrusion of the rectum mucosa through the anus. Colopexy is a treatment used in animals with viable tissue and where manual reduction of the prolapse is difficult, even after two or three unsuccessful attempts to apply a purse-string suture.

There are a few reports of laparoscopic procedures in cats. Video-assisted laparoscopic colopexy in dogs demonstrated that the absence of sutures associated with the total laparoscopic colopexy allowed effective fixation of organs and reduced the operation time. The authors were not aware of any published reports of this procedure in cats.

A 2-year-old female cat, of undefined breed, weighing 2.7 kg, presented with diarrhea and hyporexia of approximately 3 weeks duration. It showed cachexia, dehydration, abdominal distress and rectal prolapse. The total blood count revealed leukocytosis with neutrophilia and eosinophilia. The blood serum chemistry showed a decrease of all plasma proteins and hypoalbuminaemia. Further, *Toxocara* species was detected on fecal examination.

Based on the laboratory results and clinical signs, therapy with antibiotics (cephalotin 20 mg/kg, SC, q8h, for 20 days and metronidazole 30 mg/kg, PO, q12h for 7 days), anti-inflammatories (meloxicam 0.2 mg/kg, IV, q24h, 3 days), laxatives (lactulose 370 mg/kg, PO, q12h, 20 days) and anti-parasitics (pyrantel pamoate 63 mg/kg, PO; praziquantel 5.5 mg/kg, PO, repeated after 15 and 21 days) was prescribed. Conservative treatments proved inefficient. After the third recurrence, we opted for a video-assisted incisonal colopexy.

The animal was kept in a supine position and CO₂ pneumoperitoneum (12 mmHg) was obtained from a portal of 5 mm placed in the midline (by open technic, without Veress needle) between the xiphoid process and umbilicus. Another similar portal was positioned on the left inguinal region (Figure 1). The colon was grasped with Kelly forceps, and the lateral portal was removed and the wound was enlarged approximately 0.5 cm allowing the exteriorization of the descendent colon next to the rectum; a seromuscular incision was made on its antimesenteric surface (about 11 mm). A simple,
continuous suture pattern was applied covering the muscular, serosal and intestinal submucosa layers using 4-0 polypropylene, keeping the colon slightly traced on the cranial position. The surgery was carried out in 40 min. Antibiotic therapy was prescribed and feeding with paste food was indicated. There were no recurrences within the 2 months of postoperative observation. After this period, the animal showed weight gain, 3.4 kg (± 200 g per month).

The most common causes of rectal prolapse are dyschezia associated with severe colitis or secondary proctitis owing to parasitic infection. Our patient fell into the risk group.

The combination of laparoscopic and conventional accesses was undertaken to aid the attachment of the colon in a short operation time. Given that video-assisted surgery procedures demonstrated viability for dogs and the colon fixation by laparoscopic route promotes permanent adhesions, the minimally-invasive approach was chosen over the abdominal cavity approach, as the video-surgery could minimize some drawbacks associated with conventional surgery.

Colopexy permits a permanent adherence between the serosal surface of the organ and the abdominal wall, in order to prevent caudal movement of the colon and rectum. There are several methods for fixing the large intestine, incisional and non-incisional. In this case, the incisional method, with laparoscopic access, was adopted because it promotes consistent surgical adhesions with deep infiltration of conjunctive tissue.

The video-assisted incisional colopexy was effective for the treatment of recurrent rectal prolapse, without postoperative complications or recurrences for at least 2 months after the surgery.

**Funding** This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

**Conflict of interest** The authors declare that there is no conflict of interest.

**References**