Veterinary Letters
ISSN 2581-2416
DOI: https://dx.doi.org/10.29244/avl.9.2.33-34
https://journal.ipb.ac.id/index.php/arshivetlett

Emergency management of necrotic rectal prolapse in a domestic cat

Fadeli Bermami*, Septiyani

Veterinary Medicine Study Program, Department of Biomedical Sciences, Faculty of Medicine, Padjadjaran University, Bandung, Indonesia

ABSTRACT: A case of rectal prolapse in a domestic cat was treated at Veterinary Teaching Hospital, Universitas Padjadjaran, Indonesia. The cat presented with a six-day history of a reddish mass protruding from the anus. Physical examination revealed a prolapsed rectum with areas of necrosis, pale mucous membranes, and decreased skin turgor, which was consistent with dehydration. The fecal examination was negative for gastrointestinal parasites. The cat was diagnosed with complete rectal prolapse and associated tissue necrosis. The treatment consisted of manual reduction of the prolapsed rectum and placement of a purse-string suture to retain the rectum. The cat received broad-spectrum antibiotic therapy (amoxicillin (10 mg/kg) and metronidazole (25 mg/kg) during recovery, along with Tolfedine (4 mg/kg) for NSAID therapy. The purse-string suture was removed five days later, and no recurrence at one-month follow-up. This case illustrates the need for early diagnosis and timely surgical intervention in the management of rectal prolapse and to prevent progression to irreversible necrosis.

Keywords:
domestic cat, necrotic rectum, rectal prolapse, purse-string suture, feline surgery

■ INTRODUCTION

Rectal prolapse is an abnormal protrusion of rectal tissue through the anus. It can take the form of either mucosal prolapse, where only the mucosa (innermost layer) of the rectum is present, or full-thickness rectal prolapse, where all layers of the rectum are present (Fossum 2019). In cats, rectal prolapse may most commonly occur as a secondary consequence of tenesmus related to gastrointestinal or urogenital pathologies, such as diarrhea, constipation, or dystocia (Carbonell Buj *et al*. 2020). Predisposing factors may include weakness of support from perirectal or perianal tissues, lack of coordination of peristalsis, continued straining, inflammation, mucosal edema, gastrointestinal parasitic infection, congenital malformations, neoplasms of the rectum or colon, perineal hernia, urolithiasis, and foreign bodies in the rectum (Dar *et al*. 2016; Ransingh *et al*. 2024; Fossum 2019).

Prompt repair is warranted because chronic or continued prolapse can lead to desiccation of the mucosa, ulceration of the mucosa, excessive mucosal edema, secondary infections, and eventually necrosis, which may require more invasive surgical approaches including rectal amputation (Ettinger *et al*. 2017). The purpose of this case report is to document the clinical management and outcome of a cat with complete rectal prolapse and necrotic tissue, which was managed with manual reduction and purse-string suturing.

■ CASE

Signalment: A 1.5-year-old female Persian cat. **Anamnesis:** The cat had a history of intermittent rectal prolapse that resolved spontaneously. At presentation, the prolapse had persisted for 6 days. The cat had not defecated for 8 days, exhibited anorexia, decreased water intake, and normal urination. **Clinical Examination:** Body weight: 2.3 kg; Temperature: 38.1°C; mucous membranes: pale; skin turgor > 3 seconds. The rectal area was swollen with a prolapsed segment of the rectum, exhibiting signs of necrosis. Fecal consistency could be palpated within the rectum. **Diagnosis:** Complete rectal prolapse with necrosis. **Prognosis:** Guarded to fair, depending on tissue viability and response to therapy (fausta). **Therapy:** Manual rectal reduction with purse-string suturing. Intravenous fluid therapy (NaCl 0.9%), antibiotic therapy (Amoxicillin 10 mg/kg and Metronidazole 25 mg/kg), NSAID (Tolfedine®, 4 mg/kg). Supportive care including nutritional management was also provided.

■ RESULTS AND DISCUSSION

Through clinical and fecal examination with a direct smear, the cat was diagnosed with total rectal prolapse. Parasitic ova, larvae, or protozoa were not detected. The rectum had prolapsed and was visibly necrotic. We did not want the cat to develop systemic complications (e.g., sepsis or peritonitis) (Ettinger *et al*. 2017). We proceeded with treatment immediately. The area around the anus was shaved and cleaned using sterile 0.9% NaCl. Next, a hyperosmotic 5% dextrose solution was applied to the rectum with the intention of decreasing edema to facilitate rectal reduction (Fossum 2019).

Received: 29-01-2025 | **Revised:** 27-02-2025 | **Accepted:** 01-03-2025

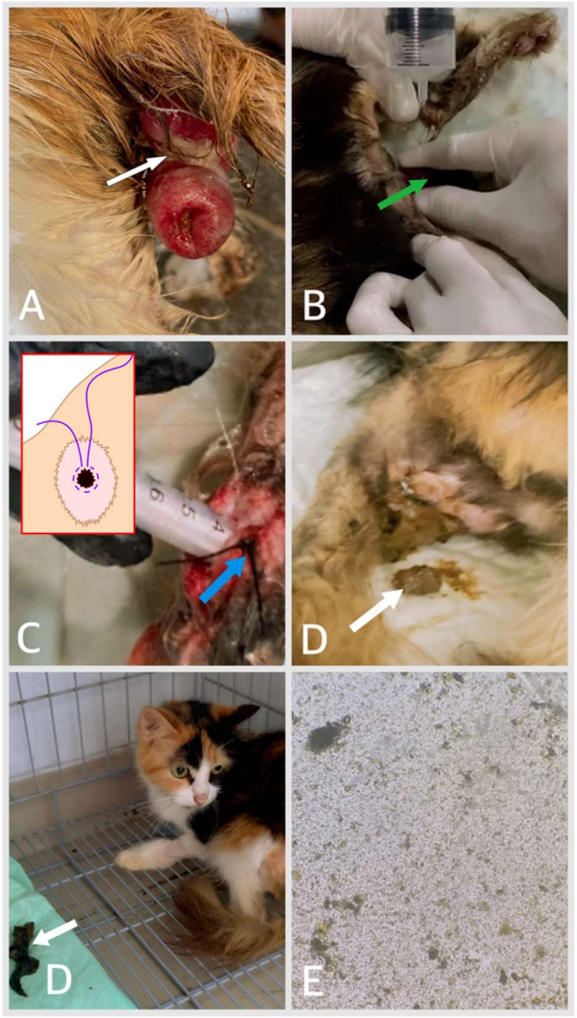

Figure 1. Progression and treatment of rectal prolapse. (A) Prolapsed rectum (white arrow: necrotic area), (B) Rectal repositioning (green arrow: rectal tissue), (C) Purse-string suture (blue arrow) with inset adapted from Tanseree 2025, (D) Day 2 post-treatment (white arrow: solid feces), and (E) Fecal smear (negative for parasites).

The therapeutic procedure consisted of manual reduction of the rectum using a sterile lubricant and application of a purse-string suture using absorbable monofilament (Figure 1). The purse-string suture maintains the position of the rectum in its anatomical position while still allowing defecation. This conservative approach is often successful when the prolapse is not chronic and fibrous tissue of the rectum is not necrotic (Monsang *et al*. 2014). In recurrent rectal prolapse or necrotic tissue cases, colopexy (surgical fixation of the colon and rectum) or partial resection may be needed (Dar *et al*. 2016). However, because the cat was systemically weak, additional surgery other than reduction would have been contraindicated.

Rectal prolapse in cats commonly occurs due to dyschezia caused by severe colitis or proctitis, often from parasitic infections (Ettinger *et al*. 2017). Constipation and intestinal dysfunction can trigger this condition by increasing intra-abdominal pressure during defecation. The cat showed constipation before the onset of prolapse, suggesting a link between these conditions. During recovery, the patient received a liquid diet and water ad libitum to promote soft stools. The antibiotic regimen included amoxicillin and metronidazole administered orally twice daily for seven days, whereas tolfenamic acid (tolfedine), a non-steroidal anti-inflammatory drug (NSAID), was injected daily for five days to control inflammation and pain. The amoxicillin-metronidazole combination effectively managed necrotic tissue. Amoxicillin covers gram-positive and selected gram-negative organisms, while metronidazole targets anaerobic bacteria in necrotic rectal tissue. This broad-spectrum antimicrobial approach prevents secondary infections and promotes mucosal healing.

A purse-string suture was applied after manually repositioning the rectum to prevent recurrence, and was removed on day five. The patient was hospitalized for seven days. The cat defecated with soft stools on day two post-treatment. By day four, fecal consistency normalized. No recurrence occurred during hospitalization or one-month follow-up. These findings showed that manual reduction, purse-string suturing, supportive medication, and dietary management resolved complete rectal prolapse and necrosis in this feline patient.

■ CONCLUSION

The emergency management of rectal prolapse with necrosis in this domestic cat resulted in successful clinical outcomes. The cat recovered fully, with no recurrence of prolapse observed during hospitalization within one month of follow-up.

■ AUTHOR INFORMATION

Corresponding Author

*FB: fadeli@unpad.ac.id

Veterinary Medicine Study Program, Department of Biomedical Sciences, Faculty of Medicine, Padjadjaran University, Jalan Ir. Soekarno KM.21, Hegarmanah, Jatinangor, Sumedang, 45363, West Java, INDONESIA.

■ REFERENCES

Carbonell Buj E, Billet JP, Vanel M, Caron A. 2020. Rectal duplication in an adult cat: a novel transanal surgical approach. Journal of Feline Medicine and Surgery Open Reports. 6(1):1-7.

Dar SH, Fazili MR, Nisar S. 2016. Management of recurrent rectal prolapse in a cat by colopexy. SKUAST Journal of Research. 18(1):65-67.

Ettinger SJ, Feldman EC, Cote E. 2017. Textbook of Veterinary Internal Medicine. 8th ed. Elsevier: Missouri.

Fossum TW. 2019. Small Animal Surgery. 5th ed. Elsevier: Philadelphia.

Monsang SW, Singh J, Madhu DN, Amarpal, Pawde AM, Kinjavdekar P. 2014. Surgical management of recurrent rectal prolapse in domestic kitten (*Felis catus*)-Case report. Journal of Advanced Veterinary Research. 4(3):142-144.

Ransingh A, Badwaik P, Upadhye SV. 2024. Management of endoparasite induced recurrent rectal prolapse in kitten: A case report. International Journal of Veterinary Sciences and Animal Husbandry. 9(4):23-24.

Tanseree A. 2025. Case report: Hoo kwang, rectal prolapse. https://wvs.academy/case-reports/hoo-kwang-rectal-prolapse/