



# Manual reduction of jejunal intussusception in a poodle<sup>†</sup>

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**ABSTRACT:** Jejunal intussusception is an uncommon cause of intestinal obstruction in dogs and is associated with abnormal motility, enteritis, parasitic infection, and foreign body ingestion. The diagnosis, surgical management, and outcome of a 3-year-old Poodle (5 kg) are described. The dog presented with vomiting, anorexia, weakness, abdominal pain, and foreign body ingestion. Abdominal radiography and hematology supported the diagnosis of intestinal obstruction and inflammatory response. Exploratory laparotomy confirmed jejunojejunal intussusception with congestion and hemorrhage without necrosis or perforation. The segment was reduced and repositioned without bowel resection or anastomosis. The abdominal wall was closed in layers, followed by postoperative therapy and monitoring, with wound healing by day 7 without complications.

## Keywords:

dog, exploratory laparotomy, jejunal intussusception, manual reduction, small intestinal obstruction

## INTRODUCTION

Intussusception is a life-threatening gastrointestinal disorder in which an intestinal segment, the intussusceptum, invaginates into a segment, the intussusciens, causing partial or complete luminal obstruction and vascular compromise. In dogs and cats, cases involve the ileocolic or jejunojejunal regions and present with nonspecific signs, including vomiting, anorexia, lethargy, abdominal discomfort, bloody diarrhea, or hematochezia (Larose *et al.* 2020). Because these signs overlap with other causes of acute abdomen, recognition depends on physical examination and diagnostic imaging. Abdominal palpation may reveal a tubular mass, whereas ultrasonography identifies target-like or multilayered intestinal patterns and supports the diagnosis in dogs (Gill *et al.* 2019) and cats (Patsikas *et al.* 2003). Radiography, contrast studies, and computed tomography may assess obstruction and refine localization (Hayden & Sprouse 2011). Therefore, this case report describes the diagnostic workup, clinical decision-making, surgical management, and outcomes of jejunal intussusception following veterinary intervention.

## CASE

**Signs and Anamnesis:** A 3-year-old male Poodle, Choco, weighing 5 kg, with a red coat. The patient presented with severe morning vomiting (already given ondansetron 2 mg tablet from KHJ Solo), a history of eating foreign objects (plastic and plastic spoon), anorexia, and decreased appetite. **Physical examination:** A weak condition, body temperature of 39.1°C, skin turgor <2 s, and abdominal pain upon

palpation. **Radiographic examination:** Left lateral abdominal radiography revealed thickening or obstruction of the small intestine (Figure 1). **Hematology examination:** An increased leukocytes and granulocytes, indicating infection or inflammation; increased MCHC, indicating concentrated erythrocytes (dehydration); decreased RDW, indicating uniform erythrocyte size; and decreased eosinophils, indicating stress (Table S1). **Differential diagnoses:** Intestinal foreign body, enteritis, ileus, and intestinal intussusception. **Diagnosis:** Exploratory laparotomy confirmed tip-to-base intussusception in the mid-jejunum. Final diagnosis was mid-jejunal intussusception. **Prognosis:** Fausta. **Treatment:** Surgical treatment followed standard aseptic preparation. The intussuscepted tissue was manually reduced and repositioned into the abdominal cavity (Figure 2). The abdominal wall was closed with layered sutures involving the muscles and skin. **Postoperative:** Administered ceftriaxone sodium sesquihydrate (25 mg/kg BW, twice daily), analgesics (bio-meloxicam, 0.2 mg/kg BW, once daily), antihistamines (Veterdryl 1 mg/kg BW once daily), b-plex (0.5 mg/kg BW, once daily), antiemetics ranitidine (2.5 mg/kg BW twice daily) and ondansetron (0.4 mg/kg BW three times daily), hemostatics (tranexamic acid 10 mg/kg BW twice daily), continued for 7 days. Monitoring showed progressive wound drainage and complete healing on the 7<sup>th</sup> postoperative day, without complications.

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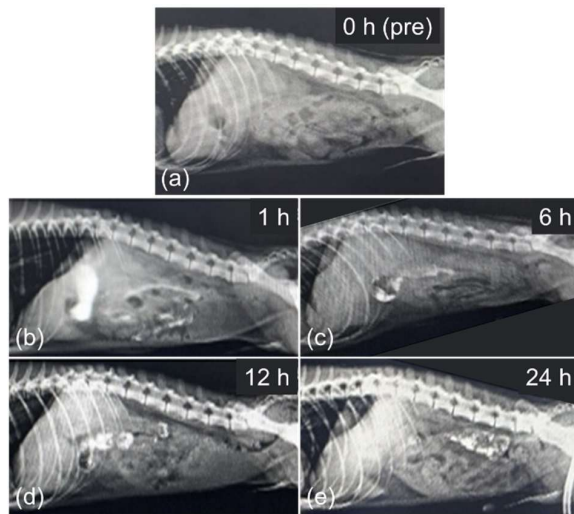


Figure 1. Preoperative abdominal radiography and serial contrast study. (a) Left lateral abdominal radiograph showing suspected small intestinal thickening and/or obstruction. Contrast radiographs were obtained at (b) 1 hour, (c) 6 hours, (d) 12 hours, and (e) 24 hours after contrast administration to evaluate gastrointestinal passage.

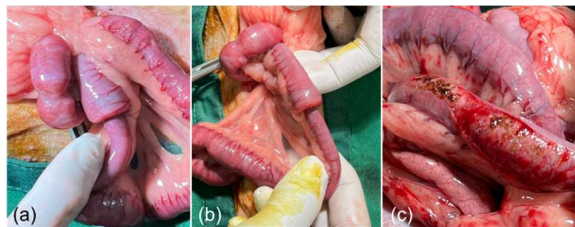


Figure 2. Surgical management of jejunal intussusception. (a) Intraoperative appearance of the jejunal segment with intussusception. (b) Manual reduction performed by gently manipulating the affected intestine. (c) Final appearance of the jejunum after successful repositioning.

## ■ RESULTS AND DISCUSSION

Manual reduction was performed without bowel resection, indicating that bowel-preserving management may be feasible when intussusception is diagnosed early and no marked necrosis or perforation is present. Exploratory laparotomy revealed an invaginated jejunal segment consistent with tip-to-base mid-jejunal intussusception (Figure 2a and b). Gentle manual manipulation reduced the segment to its anatomical position. Local hemorrhage and mucosal congestion surrounded the intussuscepted segment (Figure 2c), likely due to vascular compression during the intussusception. Intestinal telescoping may compress the mesenteric vessels, leading to venous congestion, edema, hemorrhage, and ischemic necrosis in advanced cases. Jejunal intussusception is associated with hyperperistaltic triggers, including acute enteritis, linear foreign bodies, and parasitic infections (Thomsen & Ulfelder 2022). These findings support manual reduction.

Manual reduction success is influenced by intussusception duration and ischemic injury; therefore, early intervention is critical. Previous literature suggests reduction within 24–48 hours of symptom onset have reported success rates of 40–60% for non-surgical reduction within 24–48 hours of

symptom onset (Neumann & Daure 2022). The interval between the onset of vomiting and surgery was 12 hours, likely preserving bowel viability and allowing atraumatic reduction. Avoiding resection and anastomosis may reduce complications, including leakage, stricture formation, short bowel syndrome, and mortality, at 20–30% in complicated intestinal surgery (Gill *et al.* 2019). Nevertheless, recurrence, with rates up to 15%, emphasizes monitoring by radiographic and clinical evaluation. Metoclopramide may support intestinal motility. In young dogs, dietary irregularities, foreign bodies, enteritis, and parasitic infection may predispose; owner education and parasite control are preventive measures (Adi *et al.* 2025).

## ■ CONCLUSION

Early recognition and exploratory laparotomy are essential for confirming jejunal intussusception and assessing viability with obstruction. In Choco, manual reduction without resection succeeded because the segment had no perforation or necrosis. Monitoring and educational support aid recovery and reduce recurrence.

## ■ ASSOCIATED CONTENT

### Supporting Information

†The hematology assessment was submitted in PDF form as supporting information.

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