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Clinical Case Summary: When Obstruction Becomes Life-Threatening: Emergency Management of a GI obstruction in a cat

Patient Presentation

In January 2025, our emergency and critical care service received Toobie, a 2-year-old Siberian cat, following an acute episode of vomiting. The severity of his condition was apparent on arrival, as he presented in a collapsed, unresponsive state.

Our nursing team rapidly triaged and transferred him to the ICU for immediate assessment and intervention. The initial vital signs were alarming, with extremely low blood pressure and significant hypothermia, prompting the team to immediately alert Dr Nadine.

Active warming was initiated with a Bair Hugger blanket, an intravenous catheter was placed, and boluses of isotonic crystalloid fluids were administered.

Point-of-care ultrasound revealed an underloaded heart and marked gastric distension with fluid, though no cavitory effusion was detected.

Diagnosis

Our diagnostic approach combined clinical presentation with point-of-care and laboratory testing. Initial blood work revealed significant metabolic alkalosis (pH 7.566, bicarbonate 37mmHg, base excess 15.6) and hypochloremia (73mmol/L). A formal abdominal ultrasound confirmed her clinical suspicion, identifying an obstructive foreign body in the jejunum and was highly suggestive of an obstructive process causing profound cardiovascular compromise.

Despite intravenous fluid therapy, Toobie's blood pressure remained critically low. We started a norepinephrine constant rate infusion (CRI), but at one point, his heart rate dropped dramatically from 200 to 100 bpm, requiring atropine administration.

Dr Nadine ordered additional treatments including a dextrose CRI for hypoglycemia, intravenous antibiotics for suspected sepsis and neutropenia, and a hydrocortisone CRI to manage vasopressor-refractory hypotension.

Treatment Plan

Our treatment plan focused on aggressive stabilization before surgical intervention.

The stabilizing of critically ill patients prior to anesthesia is essential, as administering anesthetic drugs to an unstable patient significantly increases the risk of peri-anesthetic complications.

The critical nature of Toobie's presentation necessitated a multifaceted approach addressing several life-threatening complications simultaneously:

1. Management of shock with fluid resuscitation and vasopressors
2. Correction of hypothermia
3. Management of electrolyte derangements
4. Treatment of suspected sepsis

5. Preparation for surgical intervention once sufficiently stable

Dr Nadine collaborated with the anaesthesia team regarding Toobie's anaesthetic plan and led the stabilization effort for over three hours before Toobie's cardiovascular parameters and temperature were deemed adequate to induce anaesthesia.

The surgical team performed an exploratory laparotomy, identifying a fabric toy ball lodged in the jejunum. This foreign body was successfully removed via enterotomy, and the abdominal cavity was thoroughly lavaged before closure.

Teaching note: In cases of severe obstructive disease, it is tempting to proceed directly to surgery. However, patient outcomes are likely to improve when cardiovascular parameters are at least partially stabilized prior to anaesthesia. While there are no published guidelines indicating a precise duration for stabilization, there is clearly a narrow window of opportunity. Decisions should be guided by clinical judgment and the patient's individual response to initial therapy. Achieving the right balance between timely surgical intervention and adequate preoperative preparation is critical.

Post Treatment

Postoperatively, Toobie's recovery was complicated by persistent hypotension, hypothermia, and ileus. The ileus required prokinetic therapy and careful nutritional management via a nasogastric feeding tube. We placed a central line to facilitate the administration of multiple CRIs and atraumatic blood sampling as Toobie continued to experience electrolyte imbalances requiring correction.

A significant postoperative complication was the development of grade IV acute kidney injury (AKI), likely resulting from prolonged hypotension at presentation. This required careful fluid management and electrolyte monitoring.

Despite these challenges, Toobie demonstrated remarkable resilience, showing gradual improvement over the course of a week in the ICU. We were eventually able to wean him off all medications and discharge him home following a complete resolution of his AKI.

This case exemplifies the importance of a comprehensive, multidisciplinary approach to complex emergency cases. The successful outcome resulted from a seamless collaboration between emergency, anaesthesia, surgical teams, and dedicated nursing care. It also highlights the remarkable resilience of our young feline patients when provided with appropriate supportive care.

ECC case study January 2025 - Toobie

To All Our Colleagues in Practice,

I'm delighted to introduce myself as the new Emergency and Critical Care (ECC) specialist at Beecroft and to share the story of one of our remarkable recent patients—Toobie!

Toobie, a 2-year-old Siberian cat, was referred to our ECC service in January 2025 after an acute episode of vomiting. On arrival, he was collapsed and unresponsive. Recognizing the severity of

his condition, our dedicated nursing team quickly triaged him and rushed him to our Intensive Care Unit (ICU) for immediate assessment.

Toobie presented with unreadably low blood pressure and hypothermia. We initiated active warming with a Bair Hugger blanket, placed an intravenous catheter, and administered boluses of isotonic crystalloid fluids. A point-of-care ultrasound revealed no cavitory effusion, but his heart appeared underloaded, and he had significant gastric distension with fluid. Bloodwork showed metabolic alkalosis (pH 7.566, bicarbonate 37mmHg, base excess 15.6) and hypochloremia (73mmol/L). Given these findings, a gastrointestinal obstruction was suspected.

Despite intravenous fluid therapy, Toobie's blood pressure remained critically low. We started a norepinephrine constant rate infusion (CRI), but at one point, his heart rate dropped dramatically from 200 to 100 bpm, requiring atropine administration. Additional treatments included a dextrose CRI for hypoglycemia, intravenous antibiotics for suspected sepsis and neutropenia, and a hydrocortisone CRI to manage vasopressor-refractory hypotension.

A formal abdominal ultrasound confirmed our suspicion of an obstructive gastrointestinal foreign body. The ECC team worked tirelessly for over three hours to stabilize Toobie, ensuring his temperature and blood pressure were within safe limits before surgery. Our anaesthesia and soft tissue surgery teams then proceeded with an exploratory laparotomy, revealing a fabric toy ball lodged in the jejunum, which was successfully removed via enterotomy.

Postoperatively, Toobie remained in critical condition, battling persistent hypotension, hypothermia, and ileus, which required prokinetic therapy and careful nutritional management via a nasogastric feeding tube. A central line was placed for easier management of his multiple CRIs and stress-free blood sampling, as he continued to experience electrolyte imbalances. Additionally, we managed a grade IV acute kidney injury (AKI), likely due to prolonged hypotension at presentation.

Despite the challenges, Toobie showed incredible resilience, improving gradually day by day. After a week in the ICU, we were able to wean him off all medications and discharge him home. We are thrilled to report that his AKI resolved completely, and Toobie made a full recovery—though we suspect he may have used up one of his nine lives!

Toobie's case is a testament to the power of a multidisciplinary approach in managing complex emergencies. We are incredibly proud of his recovery and grateful for his family's trust in us. Our ECC service is always ready to take on challenging cases, and we are here to help—whether through direct referrals or case discussions. If you have an interesting or difficult case you'd like to refer or discuss, please don't hesitate to reach out!

Best regards,

Dr Nadine Jones

American and European Specialist in Veterinary Emergency and Critical Care
Beecroft