



Surgery

SPONTANEOUS CAECAL PERFORATION FOLLOWING LOWER SEGMENT CAESAREAN SECTION: A RARE CASE REPORT AND LITERATURE REVIEW

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ABSTRACT Spontaneous perforation of the caecum is an unusual surgical emergency, particularly in post-caesarean section patients. We report the case of a 28-year-old female who developed a cecal perforation six days after a lower segment caesarean section (LSCS). The patient exhibited signs of peritonitis and shock, and emergency surgery revealed a 2×2 cm perforation on the anterior aspect of the cecum with significant faecal contamination. A limited ileo caecal resection with diversion loop ileostomy was performed with subsequent recovery. This report reviews potential pathophysiological mechanisms—including postoperative ileus and Ogilvie's syndrome—and discusses various management strategies.

KEYWORDS :

INTRODUCTION

Although hollow viscus perforations are common in emergency surgery, colonic perforations occur less frequently, and isolated caecal perforations are even rarer. Multiple factors—such as distal colonic obstruction, trauma, or foreign body ingestion—have been implicated in caecal perforations; however, the spontaneous variant remains poorly understood. Notably, spontaneous caecal perforation following LSCS is exceptionally rare, with few cases documented in the literature. Diagnostic challenges in the postpartum period are compounded by altered anatomy and limitations in radiologic imaging [1–3].

CASE REPORT

A 28-year-old female, who underwent an uncomplicated LSCS six days earlier, presented with diffuse abdominal pain, marked distension, loose stools, and fever. The symptoms, which began four days after surgery, were accompanied by tachycardia (heart rate: 140/min) and hypotension (80/60 mmHg). Physical examination revealed a significantly distended abdomen with diffuse tenderness and guarding—particularly in the lower quadrants—while bowel sounds were absent and the digital rectal examination was unremarkable.

The patient was resuscitated with intravenous fluids, and laboratory investigations revealed a hemoglobin level of 11.7 g/dL and a white cell count of 21,000/ μ L. An erect abdominal X-ray demonstrated free air under the diaphragm, and CT confirmed the presence of intraperitoneal air and fluid collections, with giveaway of the anterior wall of caecum suggesting a Caecal perforation.

An exploratory laparotomy revealed extensive faecal contamination and a 2×2 cm perforation on the anterior wall of the cecum. Following thorough peritoneal lavage, a limited ileo caecal resection was done with a diversion loop ileostomy. Postoperatively, the ileostomy began functioning on day 3, with bowel activity normalizing by day 7. Although wound dehiscence developed on postoperative day 10 (managed conservatively), the patient recovered well, and the stoma was reversed after 8 weeks. Follow-up examinations confirmed complete healing.

DISCUSSION

Spontaneous caecal perforation following caesarean section is exceedingly rare; the literature documents only a limited number of cases since the first report in the mid-20th century. The most frequently reported etiologies include postoperative paralytic ileus and Ogilvie's syndrome, which account for approximately 33% and 24% of cases, respectively, with other causes (such as volvulus) also described [4,5].

regulation—potentially due to the effects of anaesthesia or hormonal shifts (such as a decline in estrogen levels)—leading to decreased parasympathetic tone and subsequent colonic distension [6]. Additionally, pregnancy-related anatomical changes may render the cecum more mobile and susceptible to torsion or inadvertent injury during surgery [7].

Clinically, it is essential to distinguish between paralytic ileus and Ogilvie's syndrome. Paralytic ileus typically presents with diminished or absent bowel sounds and generally resolves with conservative measures such as bowel rest and nasogastric decompression. In contrast, Ogilvie's syndrome—often characterized by hyperactive bowel sounds—may necessitate more aggressive interventions such as Colonoscopic decompression, which has a reported failure rate of approximately 15%, or even surgical resection in severe cases [8,9]. In our case, the localized perforation and the patient's clinical condition supported the decision to perform a limited ileo caecal resection, an approach that offers effective source control while avoiding the morbidity associated with extensive resection [10].

CONCLUSION

Spontaneous caecal perforation following caesarean section, although rare, is a life-threatening condition that requires a high index of suspicion. Early diagnosis and prompt, tailored surgical management are critical to reducing morbidity. This case highlights the potential of limited ileo caecal resection as a viable management option and underscores the need for further research to establish standardized treatment protocols.



Figure 1: X-ray abdomen Erect demonstrating gas under both domes of diaphragm with dilated small bowel loops

The underlying mechanism may involve an imbalance in autonomic

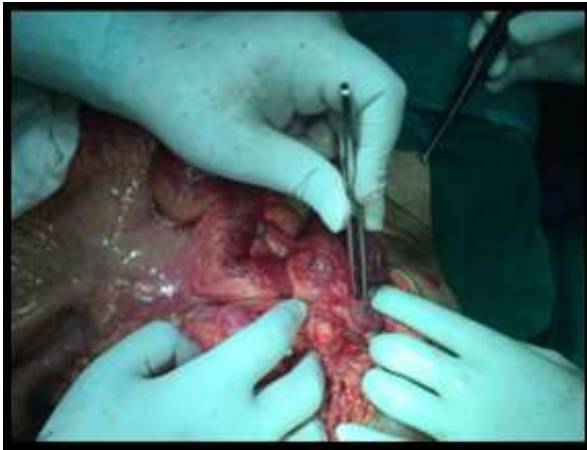


Figure 2: Contrast enhanced CT Scan of abdomen demonstrating contrast extravasation from the catcalled perforation with intense mesenteric and peritoneal inflammation



Figure 3: Intra-operative Images Showing The Catcalls Perforation

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