

A Rare Case of Superior Mesenteric Artery Thrombosis Post Vaginal Delivery

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Introduction

Acute abdominal pain following a vaginal delivery is rare. Various causes of severe acute postpartum abdominal pain include, pelvic infection, thrombophlebitis, ovarian venous thrombosis, acute urinary retention. Mesenteric vessel thrombosis is an uncommon but often fatal form of intestinal ischemia.

Case Report

Our case described a 35-year-old female, Gravida 5 Para 5 three weeks post normal vaginal delivery presented to us with complaints of sudden onset of severe upper abdominal pain, which was progressive and also noted to have abdominal distension associated with dizziness, nausea, and vomiting. Vomitus was blood-tinged. Her delivery was spontaneous and uncomplicated had a smooth postpartum recovery and was discharged in good condition. No significant medical history. She had Laparoscopic Roux en Y gastric bypass two years back and lost around thirty kilograms. The woman had a body mass index of 27. The patient went to another facility before presenting to our facility and was found to be hypotensive and transferred to our facility for further treatment. On presentation, the patient was looking unwell, hypotensive (89/42mmHg), upper abdominal tenderness, distended, normal bowel sounds, no rigidity, no vaginal bleeding, and legs were soft. A bedside scan revealed intraabdominal fluid collection, meanwhile patient started to deteriorate unable to sit up, hematemesis and systolic blood pressure dropped to 50mmHg.

Abdominal tapping was done by a general surgeon and drained serosanguineous fluid collected. Massive blood transfusion protocol was activated, and she received 4 units of RBCs, 1 unit of platelet apheresis and 1 unit of fresh frozen plasma. Despite of resuscitative measure blood pressure responded initially but dropped again.

CT abdominal pelvis showed significant narrowing and abrupt cut off of the superior mesenteric artery on arterial phase with significant narrowing at this level on venous phase. Appearances are concerning for superior mesenteric artery thrombosis. There is a significant small bowel loops distension with air-fluid level and pneumatosis intestinalis. Appearances are highly suggestive for ischemic bowel.

Emergency exploratory laparotomy was carried out and found to have foul-smelling intrabdominal fluid, frank small bowel ischemia noted from jejunum to terminal ileum, internal hernia and twisting of bowel and mesentery noted at the base of ischemic bowel. Around 380 cm of frankly ischemic small bowel resected. The remaining bowel that was dusky and mottled started to respond. Internal hernia was reduced and temporary closure of laparotomy was done. The estimated blood loss was 200 ml. The patient was started on IV antibiotics and shifted to ICU with inotropic support. On Day 2 of admission, her laboratory investigations started to improve and had a second look laparotomy, remaining bowel looked viable, distended bowel with bilious output, an appendix with multiple fecaliths. Reversal of Roux en Y gastric bypass (gastro-gastric anastomosis, jejuno-jejunal anastomosis and jejuno-ileal anastomosis), appendectomy was carried out.

After 10 days of hospital admission, she was discharged in satisfactory condition with regular follow-up in the outpatient department. Histopathology revealed an extensively congested hemorrhagic necrotic small bowel.

Investigations

Detail	Value w/Units
WBC	24.7 x x10^9/L
Hgb	145g/L
Hct	0.44L/L
Neutro %	81.00 %
Lymph %	14.00 %
Neutro #	20.03x10^9/L
Lymph #	3.46x10^9/L
Albumin Lvl	22g/L
Sodium Lvl	138mmol/L
Potassium Lvl	4.2mmol/L
Creatinine	85micromol/L
Urea Lvl	4.50mmol/L
C Reactive Prot	1.0mg/L
Prothrombin Time	18.8sec(s)
INR	1.6mmol/L
pH Ven	7.08
pCO2 Ven	60.0mmHg
HCO3 Ven	18mmol/L
BE Ven	12.7-mmol/L
Lac Ven	5.8mmol/L



Conclusion

Even after vaginal birth, pregnancy and puerperium raise the risk of thrombosis. Given that this is frequently discovered at a late and irreversible stage, an increased index of suspicion is required for an early diagnosis and rapid therapy to enhance the maternal prognosis. To lower maternal mortality, risk assessments for thromboembolism must be made periodically. To rule out mesenteric artery ischemia in cases of acute abdominal discomfort, abdominal contrast-enhanced computed tomography may be required

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