Postpartum Acute Mesentric Ischaemia: A Rare Case Report

Amit Kumar C Jain, Sunil Joshi, Hemanth Kumar P

[1] Department of Surgery, St Johns Medical College, Bangalore, India

Abstract

Vascular occlusive disease of the mesentric vessels is a relatively rare but often catastrophic problem. When acute occlusion of a major artery suppling intestine occurs, profound illness usually results and survival is fortunate.Early recognition is the key for a favourable outcome we here by report a very rare case of survival from acute mesenteric ischaemia in a young woman, occurring in postpartum period.

Key Words: Mesentric ischaemia, postpartum, abdominal pain

(Rec.Date: Feb 21, 2013 - Accept Date: Apr 01, 2013)

Corresponding Author*:* Amit Kumar C Jain, Department of Surgery, St Johns Medical College, Bangalore-560004, India
E-Mail: dramitkumarcj@yahoo.in **Phone:** 09731717134

Introduction

Acute mesentric ischaemia is an uncommon condition that accounts for 1-2% of patients presenting with acute abdominal pain [1]. In one study, mesentric ischaemia accounts for less than 1 case in every 1000 hospital admissions [2]. Although advances in diagnostic imaging, surgical technique, asepsis and antibiotics have improved outcomes in most surgical diseases over the last several decades, mesentric ischaemia remains a highly morbid condition. The mortality rate for acute mesenteric ischaemia ranges from 30% - 90% [3]. Due to late diagnosis, around 40% of patients receive either no operation or an 'open or close' laparotomy. We here by report a very rare case of acute mesentric ischaemia in young woman after caesarian section, who was fortunate to survive this catastrophic condition.

Case Report

Two weeks after a caesarian section, a 25 year old woman presented with generalised acute abdominal pain that had been going on for 3 days. She had 1episode of vomiting. There was no fever, hematemesis, and bowel or bladder disturbances. She had no co-morbidities and any previous surgeries. There was no history or smoking or alcohol consumption. On examination, she was afebrile and tachycardic. Abdominal examination revealed signs of peritonitis. Investigation revealed Hb of 14.1g/dl, WBC of 17,600 and platelets were 1.92lakhs/mm3. Her renal functions, S.electrolytes, prothrombin time, INR were normal. Ultrasound abdomen showed hepatasplenomegaly with minimal free fluid in pelvis. CT scan abdomen revealed occlusion of the distal portion of superior mesenteric artery due to thrombus with splenic infarct. Her lupus anticoagulant, anticardiolipin antibody, antithrombin, protein C & S, factor v were normal. She underwent an exploratory laparotomy that revealed

a dusky jejunum. Superior mesentric artery was explored [fig 1] and a thromboembolectomy was performed. Spleen appeared normal at surgery.

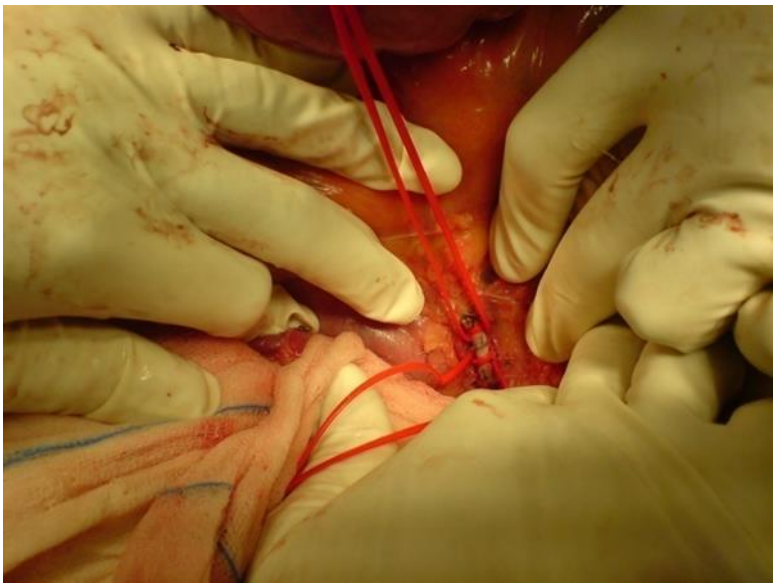

Figure 1 showing SMA Thrombosis.

A relook laparotomy was performed 24 hours later that revealed gangrenous distal jejunum and proximal ileum [fig 2] with viable proximal jejunum of 15cm length and distal ileum of 40cm length. The gangrenous portion of bowel was resected and end to end anastomosis was performed. She was given low molecular weight heparin for 5 days [4000 IU twice daily] postoperatively and was discharged on lifelong anticoagulation.

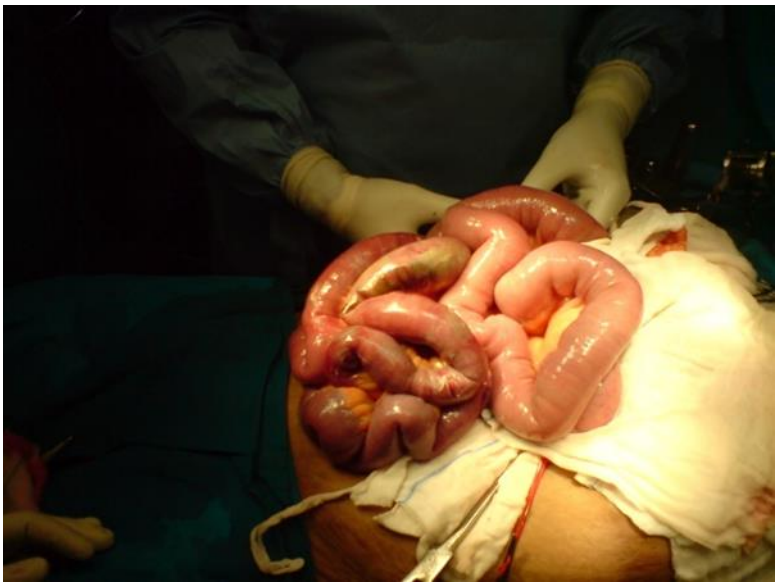

Figure 2 showing gangrenous changes [arrow] in the distal jejunum and proximal ileum due to acute mesentric ischaemia.

Discussion

Embolism is the most common cause of mesentric ischaemia, responsible for approximately 30% to 50% of cases. Thrombosis of arterial mesentric inflow accounts for 15% to 30% of case of mesentric ischaemia [3]. It is the most morbid of the various types, however, with an accompanying 90% mortality in a review of several studies. This high mortality rate has been postulated to be a consequence of proximal thromboses affecting a greater percentage of the overall bowel.

The key to successful management is a high index of suspicion. On most of the occasion by the time the diagnosis is clear, it is usually too late for the patient. Early operation in the hope of removing an embolus or bypassing an atheromatous occlusion is the key. Patients who undergo bowel resection without revascularization not infrequently die of ischaemia of the remaining intestine. Despite revascularization the mortality rate is reported between 20and 70% [1].

This is the first case reported from Indian subcontinent. Early diagnosis and timely intervention by us resulted in a successful outcome. Though we did not diagnose the mesenteric ischaemia clinically, CT scan helped us in diagnosing this condition preoperatively and proceeds accordingly. Acute mesenteric ischaemia is a very rare disorder in pregnancy and peurperium especially when there is no underlying thrombophilic condition. Pregnancy and caesarian section are both low risk category for thrombosis. Infact, a literature review of medline done from 1965-1999 showed only 2 cases of mesenteric ischaemia (mesenteric vein thrombosis) in pregnancy [4].

Postpartum thrombosis of the superior mesentric artery following vaginal delivery [5] or a caesarian section is extremely rare and is infrequently reported.

Conclusion

Postpartum thrombosis of the superior mesentric artery is very rare and is associated with high mortality. Early recognition is the key for a favourable outcome.

References

1. Alfred Cuschieri, Robert J.C. Steele, Abdool Rahim Moosa. Renovascular disease and mesentric ischaemia. In: Essential surgical practice. 4th ed. Arnold publishers, USA, 2002;732-7.
2. Schoots IG, Levi MM, Reekers JA, Lameris JS, van Gulik TM. Thrombolytic therapy for acute superior mesentric artery occlusion. J Vas Interv Radiol. 2005;16(3):317-29.
3. Grath S Herbert, Scott R Steele. Acute and chronic mesentric ischaemia. Surg Clin N Am. 2007;87(5):1115-34.
4. McGurgan P, Holohan M, McKenna P, Gorey TF. Idiopathic mesenteric thrombosis following caesarian section. Ir J Med Sc. 1999;168(3):1-2.
5. Ducarme G, Lidove O, Leduey A, Geffroy A, Panis Y, Luton D, Castier Y. Postpartum thrombosis of the superior mesentric artery after vaginal delivery. Obstet Gynecol. 2008;111(2 Pt 2):535-7.