

Adhesive Bowel Strangulation after Caesarean Section, the Rare Puerperal Complication

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Abstract: Caesarean section is the most frequent abdominal operation carried out in obstetric practice. Parturients undergoing this operation are still exposed to a substantial rate of short- and long-term complications. The incidence of re-laparotomy after caesarean section is 0.12–0.70%. The most common indication for re-laparotomy is intra-abdominal bleeding, uterine atony, eventration, haematoma in the muscle and intra-abdominal abscesses. We present the case report of an unusual life-threatening complication of caesarean section that led to re-laparotomy. Caesarean section rate has been continually increasing globally in the last few decades, thus we also have to take into account unusual complications e.g. intestinal complication.

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Introduction

Caesarean section is the most frequent abdominal operation carried out in obstetric practice and the caesarean section rate has been continually increasing globally in the last three decades (Lurie, 2005). The relative safety of elective caesarean section and the recent model of family, mostly with two children lead to the idea of choosing a preferred mode of delivery (Liu et al., 2007). The threat of forensic consequences and wish of forthcoming parents extends indications for caesarean section (Jackson and Irvine, 1998).

In spite of the popularity of this operation, improvement of surgical technique and postoperative care, parturients undergoing caesarean section are still exposed to a substantial rate of short- and long-term complications (Lurie and Glezerman, 2003; Zelop and Heffner, 2004). Re-laparotomy is one of the complications. The incidence of re-laparotomy after caesarean section is 0.12–0.70%. The most common indication for re-laparotomy is intra-abdominal bleeding, uterine atony, eventration, haematoma in the muscles and intra-abdominal abscesses. We haven't found any existing study that would report on intestinal complications as the cause of re-laparotomy (Seffah, 2005; Lurie et al., 2007; Seal et al., 2007; Gedikbasi et al., 2008).

We present a report about a case of an unusual life-threatening complication of caesarean section that led to re-laparotomy.

Case report

A 32 year old primigravida, primipara was admitted to Department of Obstetrics and Gynaecology, University Hospital Na Bulovce with acute lower abdominal pain 23 days after elective caesarean section due to breech presentation, Intrauterine Growth Restriction (IUGR) and threatened hypoxia at 36 weeks of gestation. There were no significant events in her medical history. The reason for IUGR was unclear.



Figure 1 – Strangulation of the terminal ileum in fixed adhesion coming out from the hysterotomy scar to the anterior abdominal wall.

The preeclampsia was ruled out.

The caesarean section was completed without any complications. The anaesthesiologist performed a blood patch for a post puncture headache on the 5th day. The woman was discharged on the 8th day in good condition.

At admission, the patient presented with a severe acute pain in the middle of lower abdomen, with no radiation. She did not vomit; she had passed stools 5 hours ago. The patient was not febrile; she was trying to find a relief position. The abdomen was soft, without *defense musculaire*, the point of maximum tenderness was in the area of the uterus.

Ultrasonographic finding: uterus in AVF, size 75×35×45 mm without residua, the right ovary of normal structure, on the left ovary there was an anechogenic formation 30 mm in diameter, Cavum Douglasi without the free fluid.

Laboratory results: neither elevation of leukocytes nor anaemia, CRP negative, normal ionogram, normal amylases and liver function test.

Despite intravenous analgesic therapy the pain was getting worse. The patient located pain more to the left. She was restless and insisted on surgery. There was a suspicion of the left adnexa torsion. We decided to make a diagnostic laparoscopy. A single-shot of 1.5 g Cefuroxime Acetyl and standard dose of LMWH was administered.

Haemorrhagic intestinal infarction was found during the operation. We asked a surgeon to come in because of strong suspicion of strangulation. A lower-middle laparotomy was performed.

Strangulation of the terminal ileum in fixed adhesion was found, coming out from the hysterotomy scar to the anterior abdominal wall (Figure 1), after releasing that adhesion a haemorrhagic infarction was found approximately 60 cm from the terminal ileum (Figure 2). The surgeon performed a resection of the affected area together with a partial resection of the ceacum and appendix with consequential end to end anastomosis.



Figure 2 – A haemorrhagic infarction was found approximately 60 cm from the terminal ileum.

We used antibiotic protection (Ornidazol and Cefuroxim axetile). There were no post-operative complications. The patient was discharged on the 7th postoperative day.

Conclusion

We haven't found a similar report of intestinal strangulation in adhesions after the caesarean section. Some cases of colonic pseudo-obstruction called Ogilvie syndrome were described. They were characterized by a massive dilatation of the colon looking like a mechanical obstruction.

Ogilvie's syndrome typically occurs in elderly patients who are already hospitalized with serious illnesses. It rarely occurs after caesarean section (Kolben and Loos, 1993; Ernst et al., 2007).

The diagnosis in the reported case was difficult because of the atypical course without vomiting and absence of peritoneal signs. The localization of pain in the lower abdomen imitated rather affection of the genitalia.

The caesarean section was performed using the Misgav-Ladach technique. The visceral peritoneum was left unsutured during the section. It is a question, whether the peritoneal closure would prevent the adhesion formation or not.

In spite of this being a very rare complication, the procedure of caesarean section can be life threatening. We considered necessary to notify the medical community about this case because the number of caesarean sections has been continually increasing.

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