

A rare early complication of cesarean myomectomy: Uterine rupture

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1. Introduction

A 35-year-old female patient presented to our clinic complaining about abdominal pain with increasing severity in the last 1 day. Her anamnesis revealed that she gave birth to a healthy boy through cesarean section 11 days ago (gravida 1, para 1). The indication for cesarean section was a uterine myoma 6 cm in diameter and she also underwent myomectomy during the same session. In her physical examination, she had generalized tenderness, guarding and rebound in her abdomen. In her laboratory findings, haemoglobin was 11.6 g/dL, leukocytes 15,200/mm³ and C-reactive protein 149 mg/L. The erect abdominal radiograph was normal and, no pathologies were seen in her ultrasound other than free abdominal fluid. Abdominal tomography revealed minimal free air around the liver and spleen (Fig. 1A and 1B), fluid in the abdomen and a suspicious perforated area on the anterior surface of the duodenum (Fig. 1C). With a prediagnosis of acute abdomen, a nasogastric catheter was placed and an access to the abdomen was gained through a upper midline incision. During exploration, seropurulent fluid and fibrins were seen in the abdomen. No pathologies were found in the stomach, duodenum, or small and large intestines. The gastrocolic ligament was opened and, an access was made to the bursa omentalis.



Fig. 1. a) Abdominal tomography; minimal free air around the liver on the horizontal plane, b) Minimal free air around the spleen, c) Suspicious perforated area on the anterior surface of the duodenum

Approximately 300 ml of methylene blue was administered from the nasogastric catheter and no leakage from the gastrointestinal system was seen. The uterus, uterine tubes and ovaries were examined. A perforated area approximately 2 x 1

cm in size involving the endometrium with no active bleeding was detected in the left-lateral side of the isthmus of uterus where the myomectomy had been administered (Fig. 2). The area was debrided and the myometrium and serosa were sutured in two separate layers with 0 polyglactin sutures. The abdominal cavity was washed with normal saline. After a drain was inserted into the Douglas cavity, the operation was completed. The patient was discharged without complications and she was asymptomatic after 6 months of follow-up.



Fig. 2. Image of the ruptured area on the left-lateral side of the perioperative uterine isthmus

Cesarean myomectomy (CM) is defined as resection of the anterior wall, subserous and pedunculated myomas in the uterus during a cesarean section procedure. The frequency of CM procedures has increased recently because the incidence of myoma in pregnancies is high, ranging from 1.6% to 10.7%, the management of haemorrhage in the pregnant uterus is better due to contractions and puerperal involution, and myomectomy is technically easier on a pregnant uterus (1). CM provides these patients with symptom relief and improved quality of life, and eliminates myoma-induced complication risk in the puerperium and subsequent pregnancies. Although CM allows two surgeries with a single incision avoiding the risk of repeated anaesthesia and relaparotomy, it still involves

high rates of serious early and late complications such as major haemorrhage, uterine rupture, adhesion formation between uterus and neighbouring tissues, and even the risk of maternal death (2).

Uterine rupture (UR) is a rare but dangerous complication requiring full-thickness separation of the uterine wall and the overlying serosa and involving severe maternal and neonatal morbidity and mortality. UR may develop due to splitting of a suture caused by a technical issue in an early period after CM, it may also occur at the scar site of the myometrium in pregnancies occurring many years after CM. The signs and symptoms of UR are usually nonspecific and include sudden onset abdominal pain, intra-abdominal bleeding, hypovolemic shock, fetal distress, protrusion of the fetus or placenta in the abdominal cavity, and atony of the uterus (3). To avoid delay in diagnosis and treatment, UR should always be taken into consideration and the patient should be assessed with

abdominal ultrasound, a fast and correct method for UR. A primary repair of the UR site with emergency laparotomy is usually a satisfactory treatment.

The management of myomas during cesarean section is still a controversial issue today due to serious complications such as UR. Being a high-risk surgical procedure, CM should be attempted only for selected cases and by experienced surgeons.

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