

Duodenal ulcer perforation in the puerperium: A case report

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Abstract

Acute abdomen in pregnancy and puerperium represent a challenging diagnosis. It can be due to obstetric as well as non-obstetric etiologies; ruptured ectopic pregnancy, abruption, HELLP syndrome, acute fatty liver of pregnancy, and uterine rupture, for the first, and appendicitis, gallbladder disease, acute pancreatitis, and intestinal obstruction for the latter. We present, in this report, a case of a rare non-obstetric cause of acute abdomen in the puerperium: a post-cesarean Latin-American woman was diagnosed with a perforated ulcer followed by several complications. This work aims to remind the non-usual etiologies of this pathology and the differential diagnosis of this challenging condition.

Keywords: acute abdomen; non-obstetric rare cases; pregnancy; puerperium.

Introduction

Acute abdomen in pregnancy and puerperium (AAPP) represents a challenging diagnosis [5].

The physiological changes of pregnancy hinder the diagnostic approach of AAPP [1,5]. It is a consequence of progressive uterus growth, and progesterone effects, leading to delayed gastric emptying, increased intestinal transit time, gastroesophageal reflux, abdominal bloating, lower gastric acid output, and increased production of protective mucus [2,4].

The obstetric causes are mainly ruptured ectopic pregnancy, abruption, HELLP syndrome, acute fatty liver of pregnancy, and uterine rupture [5]. The most important non-obstetric causes are acute appendicitis, gallbladder disease, acute pancreatitis, and intestinal obstruction [5].

Case report

Primigravida, a 15-year-old, was admitted for labor induction at 41 weeks of gestation. Submitted to cesarean due to cephalopelvic disproportion, discharged two days after the procedure with a physiological puerperium.

Five days after, she returned to the hospital with fever, abdominal pain, tachycardia, and emesis.

Pelvic ultrasonography (US) detected thick fluids with a volume of around 250 ml. The laboratory exams indicated leukocytosis of 22970 with 20 % of rods and 2 % of metamyelocytes.

The hypothesis of endometritis was considered and the patient was admitted for intravenous antibiotics therapy (metronidazole, gentamicin, and penicillin).

The reluctance in using radiological diagnostic modalities is one of the factors that make the diagnosis of these conditions more difficult during pregnancy [5]. The difference between normal ranges of laboratory parameters in pregnant and non-pregnant women also complicates such diagnoses [5].

It is known that about 0.5 %–2 % of all pregnant women require surgery for the non-obstetric acute abdomen [1].

Considering that, we present now a case of a rare non-obstetric cause of acute abdomen in the puerperium. This study had institutional review board approval, and the need to obtain informed patient consent was waived.

However, the patient progressed with worsening abdominal pain, dyspnea, and reduced hydro-aerial sounds.

The clinical evaluation suggested puerperal sepsis requiring an obstetric reintervention. An exploratory laparotomy was performed, showing a large amount of green discharge and adhesions.

A general surgery team was then requested, confirming a perforated ulcer. The ulcerorrhaphy was performed with Epiploon Patch. The patient was, then, admitted to the ICU, and received piperacillin-tazobactam due to a positive culture for multidrug-resistant *K. pneumoniae*.

There was some clinical worsening, and two days later she was submitted to another laparotomy, in which a fistula and an abscess

were found along with the suture of the duodenal ulcer. The antibiotic therapy was extended to meropenem, ceftazidime, vancomycin, and amphotericin B, due to the growth of non-albicans *Candida* in the catheter and blood culture.

Discussion

In the postpartum setting, acute abdominal pain of a perforated peptic ulcer may be confused with usual post-operative discomfort [3]. However, new-onset tachycardia and increasing abdominal pain should prompt attention, so the diagnosis does not occur too late [3]. In the case here presented, the persistent abdominal pain and signs of sepsis were fundamental to indicate a new laparotomy.

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After 60 days in ICU, the patient was discharged, in a healthy condition.

Conclusion

The diagnosis of the acute abdomen during post-partum is difficult and may only occur in late phases. Therefore, this paper aimed to remind the non-usual etiologies, helping in its differential diagnosis.