IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 18, Issue 3 Ser. 16 (March. 2019), PP 66-68
www.iosrjournals.org

Volvulus of the Sigmoid In Pregnancy: About A Case

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Abstract: *Volvulus of the sigmoid is the most common cause of intestinal obstruction in pregnancy, untreated it evolves towards the intestinal ischemia and the perforation [1]. We report the case of a 38-year-old patient in the third trimester of pregnancy admitted for sigmoid volvulus. Endoscopic devolvulation has been tried with failure. At surgical exploration, the sigmoid volvulus was necrotic. The sigmoid volvulus was resected and Hartman's colostomy was performed. The purpose of this publication is to show the therapeutic difficulties of this rare association (pregnancy and volvulus).*

Keys words: *volvulus of the sigmoid, pregnancy, endoscopic devolvulation, surgical emergency*

Date of Submission: 20-03-2019 Date of acceptance: 06-04-2019

I. Introduction

Volvulus of the sigmoid is a serious complication that can occur during pregnancy. Its prognosis is essentially conditioned by the precocity of the treatment [2]. Endoscopic devolvulation, which is considered a stand-by treatment, is the method of choice in the emergency treatment of occlusion on uncomplicated sigmoid volvulus. In the some cases it is not possible imposing emergency surgical management [3].

II. Goals

The aim of this work is to report a case of sigmoid volvulus in a pregnant woman admitted to the emergency room to highlight the difficulty of endoscopic and surgical management.

III. Observation

It is about a 38-years-old patient, G5P4, the current pregnancy was estimated at 32 weeks of amenorrhea. Admitted to emergencies for low bowel obstruction evolving for 2 days.

The clinical examination found a conscious patient with an apyrexis, distended tympanic abdomen, uterus spread longitudinally with perception of the 2 fetal poles, uterine height at 26 cm, initially positive fetal heart sounds and an empty rectal ampoule to the touch rectally. The biological assessment showed anemia at 10.4g / dl, leukocytosis at 12320 / ml, normal platelets at 293000 / ml and a CRP at 3 mg / l. Abdominal MRI showed an appearance of colonic occlusion on sigmoid volvulus without signs of pain (figure 1,2).

The patient was under tocolysis scheme. The endoscopic devolvulation was tried in emergency but has failed: the first foot of the volvulus was located 30 cm from the anal margin not crossed despite several attempts. The obstetric evolution has been marked by the installation of acute fetal distress. Given the endoscopic and obstetrical findings, the patient was sent to the operating room. The surgical exploration showed a huge distention of the Volvulus of the sigmoid with necrosis of the latter, the surgical procedure consisted on the resection of the necrotic sigmoid (Figure 2) and then making a Hartmann stoma and extraction of the fetus dead in utero.

IV. Discussion

Intestinal obstruction occurring during pregnancy is very rare; the incidence varies between 1 / 1,500 to 1 / 66,000 pregnancies [3]. The distribution during pregnancy is as follows: 6% in the first trimester, 27% in the second, 44% in the third and 21% during the postpartum period [2].

The clinical diagnosis is often difficult and late because the usual signs of occlusion (pain, distention, vomiting, constipation…) are taken into account the sympathetic signs of the pregnancy; in addition the

displacement of the abdominal organs in the pregnancy progresses is at the origin of atypical localizations of the pain [3]. The diagnosis should be suspected in pregnant women in the presence of pain associated with abdominal distension, vomiting and the arrest of materials and gases [4]. Our patient presented as described with the exception of vomiting that was absent. Biological analyzes are often inconclusive; Pregnancy is accompanied by a physiological hyper-leukocytosis which can vary between 9000 to 12000 because of the increase of the adrenocortical activity and this would be an unreliable indicator in the pregnant woman [5]. However, a significant increase in leukocytosis must attract the intention.

Imaging options for the diagnosis of Volvulus of the sigmoid during pregnancy are controversial given the rarity of this condition during pregnancy. It is widely accepted that the exposure of pregnant women to radiation should be avoided due to the danger of chromosomal mutations during the first two trimesters, the increased risk of hematologic abnormalities such as leukemia in the third trimester. MRI is then an alternative because it combines the accuracy of the diagnosis and is also considered to be safe for the fetus [6,7].

Endoscopy is of primary interest not only in the emergency treatment of occlusion on uncomplicated sigmoid volvulus but also allows to delay surgery. In case of pregnancy, there is a medical practice to initiate conservative treatment at the beginning. This attitude does not seem appropriate. Pregnancy itself is a complementary cause of obstruction, isolated medical treatment most often fails. Surgery is still performed in 89% of cases of intestinal obstruction occurring during pregnancy [3]. By delaying surgical management, this attitude contributes to the rise in maternal and fetal deaths [8]. Our patient had an attemptat conservative treatment in the hope of avoiding immediate surgery but the operative indication could not be avoided. Surgical exploration had revealed a sigmoid necrosis requiring resection with extraction of a fetus dead in utero probably due in part to the delay of the consultation and the management of surgery.

V. Conclusion

Volvulus of the sigmoid is the most common cause of intestinal obstruction in pregnancy; the difficulty of diagnosis and delayed management can lead to significant complications. Multidisciplinary care and timely surgery are needed to minimize maternal and fetal morbidity and mortality.

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Figure :

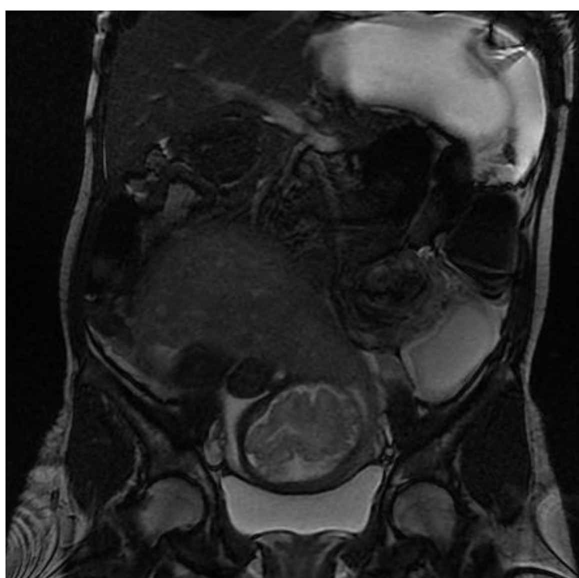

Figure 1: MRI in coronal section fiesta sequence showing a zone in whirling compatible with a volvulus of the sigmoid

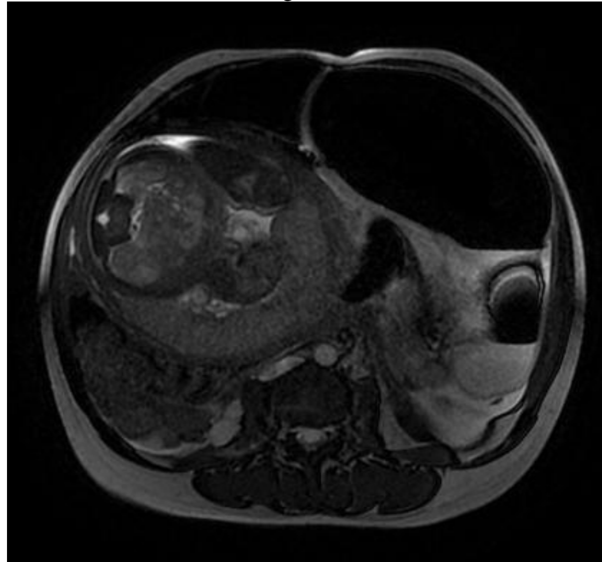

Figure 2: MRI in axial section fiesta sequence showing a colonic distention

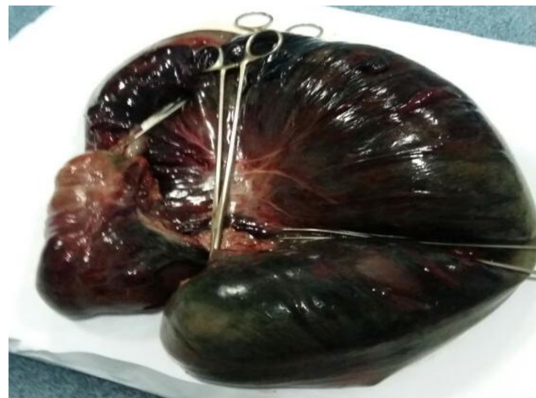

Figure 3 : operative piece

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