Scholars Journal of Medical Case Reports
Abbreviated Key Title: Sch J Med Case Rep
ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Radiology

Sigmoid Volvulus in Pregnant Women, a Pregnancy Complication or a Coincidence?

M. Ranib[1*], A. Chehboun[1], B. Zouita[1], D. Basraoui[1], H. Jalal[1]

[1]Radiology Department, Mother-Child Hospital, CHU Mohamed VI, Marrakech, Morocco

DOI: 10.36347/sjmcr.2022.v10i04.025 | **Received:** 11.03.2022 | **Accepted:** 16.04.2022 | **Published:** 23.04.2022

***Corresponding author:** M. Ranib
Radiology Department, Mother-Child Hospital, CHU Mohamed VI, Marrakech, Morocco

Abstract **Case Report**

Intestinal obstruction complicating pregnancy is an extremely rare complication during pregnancy. Volvulus of the sigmoid colon is the most common cause of intestinal obstruction complicating pregnancy. Which can be associated with extremely high rates of mortality and morbidity for both mother and fetus. We report a case of sigmoid volvulus complicating pregnancy in a woman with 39 weeks amenorrhoea, which was diagnosed early and successfully managed with deterioration and fixation.

Keywords: Sigmoid volvulus; pregnancy; Computed tomography (CT).

Copyright © 2022 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution **4.0 International License (CC BY-NC 4.0)** which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

Case Presentation

We report here a case of 22-year-old female, primigravida, in 39nd week of pregnancy, presented to the emergency department with a 7-day history of constipation and abdominal pain. She had no significant medical or surgical history. Her current pregnancy had been uncomplicated to this point. Despite the use of antispasmodics and laxatives for 2 days, her pain had been worsening, and she had become unable to pass stool or flatus. Her vital signs at the time of presentation to the emergency department were normal. The physical examination revealed a gravid woman with a distended and tender abdomen. Fetal monitoring showed no evidence for fetal distress. Abdominal x-ray showed a colic hydoaeric level (Figure 1), Magnetic resonance imaging (MRI) was not readily available, so a computed tomography (CT) scan of the abdomen and pelvis was performed. The CT scan revealed an obstruction of the large bowel. A transition point was noted at the level of the sigmoid colon. The diagnosis of sigmoid volvulus was confirmed by the ‘‘whirl sign’’ showing mesenteric vessels twisted and wrapped by bowel loops (Figure 2). There was no free intraperitoneal liquid or gas. The patient underwent concomitant caesarean section and laparotomy for intestinal obstruction. Intra-operatively, a dilated sigmoid colon rotated about two times around its mesentery was seen adjacent to the pregnant uterus. The sigmoid was detorted and was fixed to the pelvic floor through its mesentery. A lower segment caesarean section was performed to deliver a healthy male infant weighting 2540 g, the patient had an uneventful recovery and discharged safe on seven postoperative day.

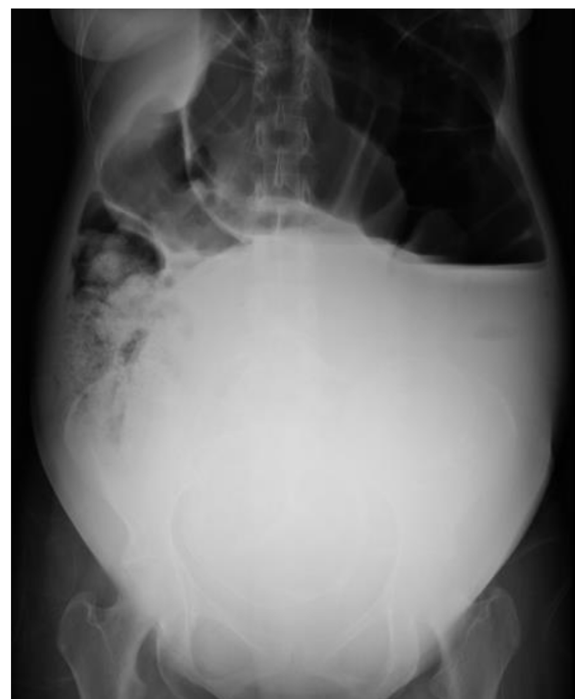

Figure 1: Abdominal x-ray showed a colic hydoaeric level

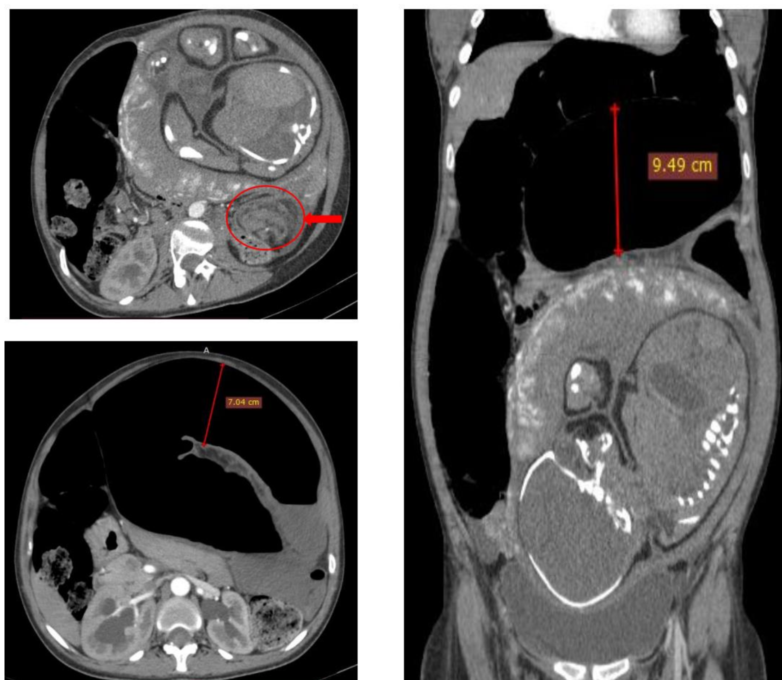

Figure 2: Computed tomography image of abdomen showing bowel obstruction with transition point at the level of the sigmoid colon and ''whirl sign'' (arrow)

DISCUSSION

Sigmoid volvulus is a very rare complication during pregnancy, approximately 105 cases have been reported since 1885 [1], The pathophysiology of pregnancy, including gestational anatomical and physiological changes such as increased uterine drainage, progesterone induced bowel relaxation, decreased peristalsis, and retention of feces, may be a factor in the pathogenesis of sigmoid volvulus, with it occurring more commonly in pregnant than in non pregnant woman. The mechanism of volvulus in pregnancy appears to be an abnormally mobile sigmoid colon due to the enlarged uterus, resulting in the colon being pushed out of the pelvis and rotating around its fixation point [2].

Typical symptoms of SV in pregnancy are intermittent and severe abdominal pain, distention, and obstipation, which are known as SV triad [3]. Ultrasonography and MRI are the imaging techniques of choice, especially during the early stages of pregnancy. However, when necessary, CT scanning results in an ionizing radiation dose that is much lower than the level of exposure associated with fetal harm. If a CT scan is necessary in addition to ultrasonography or MRI, or if it is the only advanced imaging technique that is readily available, as was true in our case, CT imaging should not be withheld from a pregnant patient [4].

The management of SV in pregnancy requires a collaboration of general surgeons, obstetricians, and neonatologists in addition to a proper resuscitation; the choice of treatment depends on the duration of pregnancy and the state of the sigmoid colon [5].

REFERENCES

1. Ashraf, O., Peer, S., Fayaz, M., Dar, M. S., Illahi, I., & Shafi, F. (2016). Sigmoid volvulus during second trimester of pregnancy in a primigravida: Report of a rare case with review of imaging of sigmoid volvulus. *Int J Case Rep Images*, *7*(7), 436-440.
2. Watanabe, T., Kinjo, T., Kinjyo, Y., Nitta, H., Masamoto, H., Mekaru, K., & Aoki, Y. (2021). Sigmoid Volvulus in Pregnancy Assessed by Contrast-Enhanced Computed Tomography Scanning. *Case Reports in Obstetrics and Gynecology*, *2021*.
3. Atamanalp, S. S., Kisaoglu, A., Ozogul, B., Kantarci, M., Disci, E., Bulut, O. H., ... & Atamanalp, R. S. (2015). Sigmoid volvulus complicating pregnancy: a case report. *The Eurasian Journal of Medicine*, *47*(1), 75-76.
4. Tesnière, M., Arnoult, A., & Roger, N. (2018). Sigmoid volvulus in pregnancy. *Journal of Emergency Medicine*, *54*(6), e129-e131.
5. Al Maksoud, A. M., Barsoum, A. K., & Moneer, M. M. (2015). Sigmoid volvulus during pregnancy: a rare non-obstetric complication. Report of a case and review of the literature. *International journal of surgery case reports*, *17*, 61-64.