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Case Report

Megarectum in pregnancy causing coital penetration failure

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ABSTRACT

Megarectum rarely occur in adults. Rectal innervation abnormality or rectal muscle dysfunction could be the underlying pathophysiology, but there are cases where no specific cause is found. Only a handful of cases of megarectum in pregnancy were reported in the literature. Raised progesterone and reduced motilin level during pregnancy may affect bowel motility and predispose pregnant patients to this unusual condition. Clinical presentation ranges from bowel symptoms e.g. chronic constipation, nausea, vomiting and abdominal pain to dysfunctional labour including labour dystocia and obstructed labour. We hereby present a 23 year old lady in early pregnancy who presented with coital penetration failure due to megarectum. We wish to discuss the impact, outcome and management of this rare condition in pregnancy.

Keywords: Megarectum, Pregnancy, Coital penetration failure

INTRODUCTION

Definition of megarectum is highly variable. Nakayama describes a rectum that can hold more than 1,500 cc of fluid as a megarectum.¹ Preston et al define megarectum as rectal diameter at the pelvic brim greater than 6.5 centimeter.² Other authors suggest that it is when rectopelvic ratio is greater than 0.61 associated with significant abnormalities in the anorectal manometry, pressure-volume curves or rectal compliance.³

Regardless of the definition used, megarectum simply means extreme dilation of the rectum without any distal obstruction. Detection of megarectum in adults is often attributed to missed diagnosis during childhood or delayed presentation of the disease. Megarectum may contain hardened inspissated faeces called faecaloma. Complications result either from direct obstruction of the bowel segment or rarely from the direct compression onto the adjacent anatomical structures, usually involving the bladder, ureteral and nerve. Megarectum with direct

compression onto the vagina causing coital penetration failure has never been reported before.

CASE REPORT

A 23 year old lady in her first pregnancy at 11 weeks presented with painful intercourse associated with progressive difficulty in penetrative sex and ultimate coital penetration failure. There was no history of abdominal pain or per vaginal bleed. Further history revealed that she had worsening chronic constipation since early pregnancy.

Clinically she appeared comfortable, not pale and with normal vital signs. Her body mass index was 21 kg/m². Examination of the abdomen revealed an indentable 18 weeks size mass over the suprapubic area and another firm mass at left iliac fossa region which later confirmed to be the uterus. Patient refused vaginal and rectal examination due to fear of pain.

Ultrasound showed a posterior non-specific mass displacing the uterus out of the pelvic cavity towards the

left iliac fossa. Irregular intrauterine gestational sac suggestive of missed miscarriage was also seen. The patient subsequently had a spontaneous complete miscarriage.



Figure 1: CT scan; sagittal view of the abdomen and pelvis showing megarectum containing faecaloma (F), bladder (B) and elongated vagina (arrow).



Figure 2: CT scan; coronal view of the abdomen and pelvis showing megarectum containing faecaloma (F).



Figure 3: CT scan coronal view showing displaced uterus (UT) to the left side of the abdominal cavity and bladder (B) being pushed superiorly to the right side.

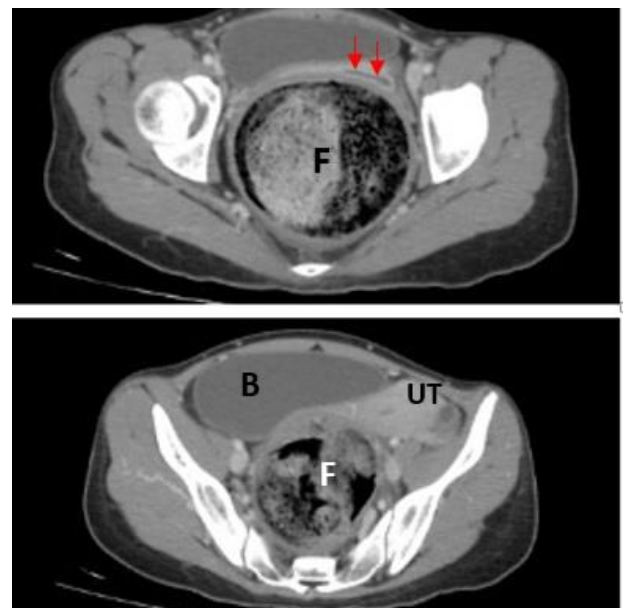


Figure 4: Axial view CT scan pelvis showing compressed vagina (arrow), bladder (B), uterus (UT) and faecaloma (F).

Computerized tomography (CT) scan demonstrated gross dilatation of the rectum consistent with megarectum measuring 19.2×8.4 cm (Figure 1 and 2). Impacted faecaloma was seen exerting mass effect onto the adjacent pelvic structures. The vagina was compressed and became elongated, the uterus was displaced into the abdominal cavity to the left side and the bladder was displaced superiorly to the right side (Figure 1, 3 and 4).

The patient was counselled for an elective transanal rectal biopsy and anal manometry to ascertain the diagnosis. On the other hand, she was also advised for rectal irrigation with manual evacuation of faeces in the event of large bowel obstruction secondary to impacted stool. The patient will eventually require definitive surgery in the form of rectal and colonic resection. Trephine transverse colostomy should also be considered in recurrent large bowel obstruction prior to definitive surgery. For the time being, she has yet to agree to further evaluation and management.

DISCUSSION

Megarectum may cause complications either through direct bowel obstruction or direct compression of adjacent anatomical structures by faecaloma. Complications include stercoral ulcer, bowel perforation, peritonitis and peritoneal abscess.⁴ Rare complications include urinary retention, bladder compression, bladder rupture, ureteral obstruction, hydronephrosis, nerve compression, sciatica and deep venous thrombosis.⁵ To our knowledge, this is the first case report of megarectum causing coital penetration failure.

Megarectum in pregnancy is extremely rare and there are only a handful of reported cases in the medical literature. Pregnancy is very risky because in addition to the above complications, this condition is associated with premature rupture of membrane, preterm labour, unstable lie, obstructed labour and uterine rupture.⁶ Severe maternal morbidity and neonatal death have also been reported.⁷

Presenting symptoms include nausea and vomiting, abdominal pain and abdominal mass. Many patients gave an underlying history of chronic constipation upon further questioning.⁸ Ultrasound is non-specific but may show effect of pelvic organ compression for example elongated vagina, uterine displacement from pelvis to abdominal cavity and compressed bladder as in our case. Advanced imaging modality like CT scan or MRI is diagnostic. MRI is preferable in pregnancy as it has low measurable radiation risk to the foetus.⁹ CT scan was performed in our patient as the diagnosis of miscarriage was already been made.

The management of megarectum in pregnancy requires multidisciplinary involvement to bring the best outcome for both mother and foetus. Obstetrician, gastroenterologist and colorectal surgeon must work together with the intention to prolong the pregnancy until foetal viability while making sure no complications occur.¹⁰ Neonatologist and anaesthetist must be involved especially around the time of delivery. In our case, coital penetration failure had caused considerable distress to the patient and had affected her marriage. The role of counsellor, therapist and also psychiatrist were therefore very important in this case.

In early pregnancy, management is usually conservative. This include high fibre diet, exercise and high water intake, use of enemas, laxatives and also manual disimpaction. Laxatives of choice would be osmotic laxative rather than stimulant.¹¹ Examples are lactulose, magnesium salts, polyethylene glycol or sorbitol.¹¹ Towards later gestation, the issue regarding mode of delivery should be discussed and planned well ahead of time especially if the faecaloma obstructed the pelvic outlet. If vaginal delivery is contemplated, one has to be ready to perform manual faecal disimpaction. This procedure is done during labour to facilitate vaginal delivery, however it could also be associated with foetal compromise.¹¹ In many cases, assisted instrumental deliveries via forceps or ventouse are required.¹¹ If abdominal delivery is planned, care should be taken upon entering the peritoneal cavity in order to avoid injury to the redundant colon.¹² Management in our case was much easier as the pregnancy did not progress to term.

In most cases of megarectum in pregnancy, all effort are made to avoid the surgical intervention before delivery. Presence of megarectum in pregnancy causes significant challenges to confirm the diagnosis and plan the subsequent management. Anal manometry can be performed to assess the sphincter function as pregnancy does not affect the anal sphincter morphology and function.¹³ Barium study is contraindicated in early pregnancy and MRI pelvis is considered safe alternative to demonstrate presence of megarectum.⁹ Transanal rectal biopsy plays important role to identify aganglionosis associated with Hirschprung's disease and this procedure can be safely performed during pregnancy under spinal anaesthesia.¹¹

Almost all cases of megarectum required rectal and to some extent colonic resection to rectify the condition.¹⁴ Performing such operation during pregnancy however is associated with miscarriage and should be delayed until postpartum period. In the event of acute large bowel obstruction due to impacted fecaloma, rectal irrigation with manual evacuation of faeces can be performed. We could not find any literature regarding stoma creation during pregnancy. Nevertheless, the authors opined that trephine transverse colostomy which is performed without the need of laparotomy is relatively safe in case of recurrent fecaloma-induced large bowel obstruction.

CONCLUSION

Progressive failure of coital penetration could be the presenting complaint of a patient with megarectum in pregnancy. It is a rare condition and potentially dangerous to both mother and foetus. Antenatal management with multidisciplinary input is important to ensure optimal outcome. Mode and timing of delivery is of particular importance in advanced gestation. Authors are reporting this case to increase awareness amongst the clinicians of this rare obstetric condition.

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