ORIGINAL RESEARCH

Evaluation of acute abdominal condition in pregnancy

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ABSTRACT
Background: The term "acute abdomen" describes the abrupt onset of excruciating abdominal discomfort that need immediate medical attention and frequently surgery. It can be brought on by a number of underlying illnesses and is a symptom rather than a diagnosis. The present study was conducted to assess acute abdominal condition in pregnancy. **Materials & Methods:** 90 pregnant women in different trimester who reported with acute abdominal pain were enrolled. The causes of acute abdominal conditions, both obstetric and non-obstetric, were noted. **Results:** In age group 10-20 years, 20-30 years, 30-40 years and 40-50 years, ectopic pregnancy was seen in 3, 1, 0 and 1. Abruptio placenta was seen in 23, 9, 8 and 7. Acute appendicitis was seen in 7, 7, 2 and 1. Acute cholecystitis was seen in 2, 4, 2 and 2, Hellp syndrome in 3, 1, 1 and 0, twisted ovarian cyst in 2, 3, 0 and 1 patient respectively. Maximum cases were seen in 1st trimester (49) followed by 3rd (21) and 2nd (19). Maximum cases of Abruptio placenta (14) were seen in 1st trimester, acute appendicitis in 1st, acute cholecystitis in 1st, Hellp Syndrome in 2nd and 3rd, twisted ovarian cyst in 1st and 2nd trimester. The difference was non-significant (P> 0.05). **Conclusion:** One of the primary causes of acute abdomen during pregnancy is abruptio placenta, which is followed by acute appendicitis.
Keywords: acute abdomen, trimester, Hellp Syndrome

INTRODUCTION

The term "acute abdomen" describes the abrupt onset of excruciating abdominal discomfort that need immediate medical attention and frequently surgery.[1] It can be brought on by a number of underlying illnesses and is a symptom rather than a diagnosis. Tocolytics are intended to relieve the uterus from the trauma of an acute abdomen while conservative treatment or surgery is being carried out, albeit this is up for debate.[2] Abdominal pain is among the most common reasons people visit the emergency room. Few people will be diagnosed with "acute abdomen due to serious intra-abdominal pathology necessitating emergency intervention," even though most patients' symptoms are benign and resolve on their own.[3]

In order to determine the most likely cause of the patient's symptoms and determine whether emergency operating intervention is necessary, a quick workup is necessary when a patient appears with acute abdominal discomfort.[4] The best course of treatment should then be initiated after the patient's clinical status has been optimized. As part of the workup, the patient's medical history and physical examination should be as comprehensive as feasible. Laboratory and radiologic tests should then be performed sparingly.[5] When assessing patients with acute abdominal pain, doctors may encounter diagnostic challenges since these patients may display peculiar symptoms that make it challenging to identify patterns, which are frequently used to guide therapy choices. These unusual presentations could contribute to the more than 25% of cases of abdominal pain that are classified as "nonspecific" or "undifferentiated.[6,7] The present study was conducted to assess acute abdominal condition in pregnancy.

MATERIALS & METHODS

The present study was conducted on 90 pregnant women in different trimester who reported with acute abdominal pain. All were informed regarding the study and their written consent was obtained.

Data such as name, age, etc. was recorded. The causes of acute abdominal conditions, both obstetric and non-obstetric, were noted. Data thus obtained were

subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Causes	10-20 years	20-30 years	30-40 years	40-50 years
Ectopic pregnancy	3	1	0	1
Abruptio placenta	23	9	8	7
Acute appendicitis	7	7	2	1
Acute cholecystitis	2	4	2	2
Hellp Syndrome	3	1	1	0
Twisted ovarian cyst	2	3	0	1
Total	40	25	13	12

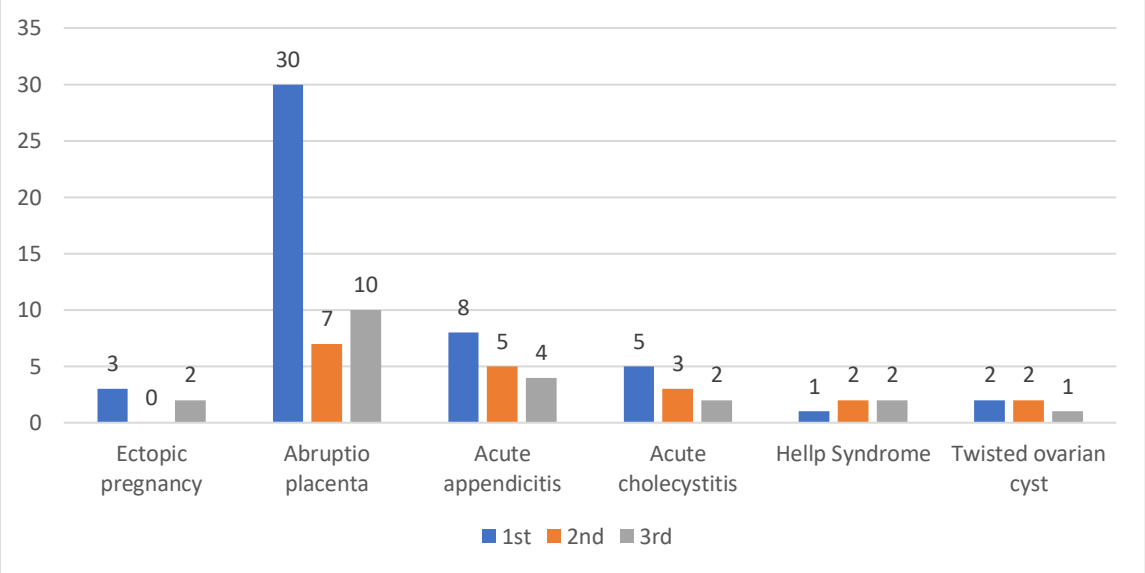
Table I shows that in age group 10-20 years, 20-30 years, 30-40 yearsand 40-50 years, ectopic pregnancy was seen in 3, 1, 0 and 1. Abruptio placenta was seen in 23, 9, 8 and 7. Acute appendicitis was seen in 7, 7, 2 and 1. Acute cholecystitis was seen in 2, 4, 2 and 2, Hellpsyndrome in 3, 1, 1 and 0, twisted ovarian cyst in 2, 3, 0 and 1 patient respectively.

Table II Distribution of patients based on trimester

Causes	1st	2nd	3rd	P value
Ectopic pregnancy	3	0	2	0.21
Abruptio placenta	30	7	10	0.05
Acute appendicitis	8	5	4	0.79
Acute cholecystitis	5	3	2	0.63
Hellp Syndrome	1	2	2	0.25
Twisted ovarian cyst	2	2	1	0.91
Total	49	19	21	

Table II shows that maximum cases were seen in 1st trimester (49) followed by 3rd (21) and 2nd (19). Maximum cases of Abruptio placenta (14) were seen in 1st trimester, acute appendicitis in 1st, acute cholecystitis in 1st, Hellp Syndrome in 2nd and 3rd, twisted ovarian cyst in 1st and 2nd trimester. The difference was non- significant (P> 0.05).

Graph I Distribution of patients based on trimester



DISCUSSION

Conditions both specific to and incidental to pregnancy may present with abdominal pain. Pregnancy-related causes vary with the trimester. The initial step in assessing abdominal pain in pregnancy is a detailed history and abdominal examination and, if indicated, a pelvic examination.[8] The use of diagnostic tools such as ultrasound scanning has aided clinical assessment. If radiographs are essential in clinical decision-making, they should be used with due attention to minimizing the dose of radiation to the fetus.[9,10] Diagnosing and treating an acute abdomen during pregnancy is very challenging. Along with obstetric factors, non-pregnancy-related factors can also contribute to acute abdominal pain during pregnancy.[11] Because of the changing clinical

presentations brought on by the physiological and anatomical changes of pregnancy, as well as the unwillingness to utilize certain radiological tests out of concern for the fetus, diagnosing acute abdomen during pregnancy can be challenging. Delays in diagnosis and treatment could have negative effects on the mother and the fetus.[12] A multidisciplinary team should respond quickly to pregnant women who experience severe stomach discomfort, treating it as an emergency. A general surgeon, obstetrician and gynecologist, maternal-fetal specialist, and radiologist should be consulted due to the seriousness of the issue.[13]The present study was conducted to assess acute abdominal condition in pregnancy.

We found that in age group 10-20 years, 20-30 years, 30-40 years and 40-50 years, ectopic pregnancy was seen in 3, 1, 0 and 1. Abruptio placenta was seen in 23, 9, 8 and 7. Acute appendicitis was seen in 7, 7, 2 and 1. Acute cholecystitis was seen in 2, 4, 2 and 2, Hellp syndrome in 3, 1, 1 and 0, twisted ovarian cyst in 2, 3, 0 and 1 patient respectively.The function of sonography in assessing acute abdomen during pregnancy was examined by Galnc et al.[14] Examples were gathered from gravid patients who had sonography after exhibiting symptoms and indications suggestive of an acute abdomen. The sonographic results of several maternal problems that can manifest as acute abdominal pain in pregnant patients are displayed in this presentation. When a pregnant patient presents with an acute abdomen, sonography is still the first imaging modality used. Based on the sonographic results, more imaging or patient triage may be acquired.

We found that maximum cases were seen in 1st trimester (49) followed by 3rd (21) and 2nd (19). Maximum cases of Abruptio placenta (14) were seen in 1st trimester, acute appendicitis in 1st, acute cholecystitis in 1st, Hellp Syndrome in 2nd and 3rd, twisted ovarian cyst in 1st and 2nd trimester. The effectiveness of MR imaging in the assessment and triage of pregnant patients who exhibit acute pelvic or abdominal discomfort was evaluated by Oto et al.[15] There were 118 pregnant patients in all. Two patients had equivocal MR results, and eleven patients (n = 9 who had surgery to confirm it, n = 2 who recovered without it) had positive results for acute appendicitis. Adnexal torsion was surgically verified in one patient with ambiguous MR, whereas appendicitis was proven in another. Additional MR imaging-recommended surgical/interventional diagnoses were gastric volvulus (n = 1), acute cholecystitis (n = 1), abscess (n = 4), and adnexal torsion (n = 4). Without surgery, two patients with MR diagnoses of torsion showed improvement. A biliary cystadenoma was discovered during surgery in one patient who had an MR diagnostic of an abscess. The remaining MR diagnoses mentioned above were verified through intervention or surgery. Adnexal lesions (n = 9), urinary pathology (n = 6), cholelithiasis (n = 4), degenerating fibroid (n = 3), DVT (n = 2), hernia (n = 1), colitis (n = 1), thick terminal ileum (n = 1), and rectus hematoma (n = 1) were among the 28 patients whose MR imaging showed medically treatable etiology. One of these individuals had an adnexal tumor removed during pregnancy, and three of them had negative surgical exploration. After receiving medical care, other patients were released. For acute appendicitis and surgical/interventional diagnosis, MR imaging's sensitivity, specificity, accuracy, positive predictive values (ppv), and negative predictive values (npv) were 90.0% vs. 88.9%, 98.1% vs. 95.0%, 97.5% vs. 94.1%, 81.8% vs. 76.2%, and 99.1% vs. 97.9%, respectively.

The limitation of the study is small sample size.

CONCLUSION

Authors found that one of the primary causes of acute abdomen during pregnancy is abruptio placenta, which is followed by acute appendicitis.

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