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Original article

Acute obstetric and gynecologic emergencies among pregnant women in a tertiary care hospital, Iran

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Abstract

Background: Acute abdominal pain is a medium or severe abdominal pain that can lead to a life threatening for pregnant women and frequently requires urgent investigation and management. The aim of this study was to assess the causes and the presentation of acute abdomen among pregnant women admitted at the gynecology and an obstetrics ward of the hospital.

Methods: The present study was a cross sectional hospital based study among 118 pregnant women by face to face interview using a semi structured questionnaire. This study was conducted at the gynecology and an obstetrics ward of the hospital, Babol Iran, from April 2004 to February 2009. All analysis was performed with SPSS software.

Results: Mean age of women was 29.1±6 years. The frequencies of the most common diagnosis of the patients were ectopic pregnancy (73.7%), appendicitis (10.2%), respectively. The study found that 55.1% of respondents complained their pain lasting more than 24 hours. Besides, 81.4% of respondents felt pain in the supra pubic followed by with nausea/ vomiting. A total of 103 (83.9%) underwent with salpingostomy and 12 (10.1%) were treated with appendectomy.

Conclusion: The study concludes that a large prospective study is needed in order to precise diagnosis of the acute abdomen in pregnant women by continual updating of availability of the gynecologists for the management of the acute gynecologic and obstetrics emergencies among pregnant women.

Keywords: Ectopic pregnancy, Emergency, Gynecological, Obstetrics

Introduction

Acute abdominal pain is a common presentation in surgical that occur in patients outpatients of all ages (1, 2). It is associated with high morbidity and mortality However, ultrasound plays an important role in the acute emergencies, but diagnoses and imaging of abdominal pain in pregnancy are difficult (3-6).

Inaccurate diagnosis may result in delayed or improper management and may increase maternal and fetal mortality and morbidity (7, 8). Physiological changes during pregnancy cause a lot of confusion in the interpretation of clinical and para-clinical findings (9, 10). In pregnancy, there is naturally a relative decrease in immune activity, and this can cause a decrease in inflammatory response and loss of symptoms in inflammatory disorders (11). In general, biochemical,

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physiological and anatomical changes during pregnancy, may change common signs and symptoms in various diseases (12). Two surgical methods for treatment of acute abdominal are laparoscopic approach and traditional laparotomy (13). The differential diagnosis of abdominal pain is wide because of the high distinguishing diagnosis and special sensitivity, should be considered in the physical examination and patient history (3, 10). Therefore, this study was conducted with an objective of assessing the causes and the presentation of acute abdomen among pregnant women admitted at the gynecology and an obstetrics ward of the hospital to be a foundation for correct diagnoses and quicker treatment decisions in the future.

Materials and Methods

Research Ethics Committee of the Babol University of Medical Sciences approved this study. All the women agreed to treatment records and intra-operative findings and signed informed consents. The research design of this study was a cross sectional hospital based study, and 118 women selected by the consecutive method of non-probability sampling technique among women with acute abdominal at the gynecology and an obstetrics ward of the hospital, Babol, Iran, from April 2004 to February 2009. Immediate resuscitation followed by a detailed history taking, physical examinations, lab investigations, including ultrasonography for diagnosis and appropriate management were done as per the existing protocol for all patients. Data were collected by face to face interview using a semi structured questionnaire.

All analysis was performed with SPSS software (Statistical Package for the Social Sciences, version 18.0, SPSS Inc, and Chicago, USA). Descriptive statistics were used to describe variables.

Results

Out of the 6,128 pregnant women who admitted in the department of gynecology surgery (31.4%) and obstetrics department (68.6%) of tertiary care Hospital 2004 to 2009, 118 cases (1.9%), who required emergency laparotomy. The mean age of the patients was 29.1±6.4 years (range 17-43) years old. The frequencies of the most common diagnosis of the patients were ectopic pregnancy (73.7 %), appendicitis (10.2%), ruptured ectopic pregnancy 7 (5.9%), Ovarian Cyst/ Twisted / Ruptured Ovarian cyst (10.2%), respectively (Table 1).

Table 1. Diagnosis of the patients in a Tertiary Care Hospital, Iran

Diagnosis	N	%
Ectopic pregnancy	87	73.7
Ruptured ectopic pregnancy	7	5.9
Ovarian mass/cyst	6	5.1
Twisted/ruptured ovarian cyst	6	5.1
Appendicitis	12	10.2
Total	118	100.0

A total of 103 (83.9%) underwent with Salpingostomy and 12 (10.1%) were treated with appendectomy finally, 6 (5.1%) were treated with oophorectomy / ovarian cystectomy (Table 2)

The study found that 85 (55.1%) of the patients complained their pain lasting more than 24 hours. The most common presenting complaint was pain in the supra pubic (81.4%) followed by with nausea/ vomiting (35.6%) or an abnormal vaginal bleeding (27.1%) or a combination of both (3.4%) (Table 3).

Discussion

A wide variety of women with acute obstetric and gynecologic emergencies are encountered in the emergency room at hospitals worldwide. During the period of five years, a total of 118 cases of acute abdominal were seen in this study. In addition, Pokharel, et al. (2011) showed 314 cases of acute obstetric and gynecologic emergencies for a lower duration than of our study (2). The most common gynecological and obstetrical emergency encountered

Table 2. Emergency procedures/operations performed on the patients

Procedures/Operations	N (%)
Salpingostomy/ salphingectomy	88 (74.6)
Salphingectomy with oophorectomy/ ovarian cystectomy	7 (5.9)
Salphingectomy with tubal ligation	4 (3.4)
Oophorectomy /ovarian cystectomy	6 (5.1)
Appendectomy	11 (9.3)
Appendectomy with cesarean section	1 (0.8)
Oophorectomy with cesarean section	1 (0.8)
Total	118 (100.0)

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Table 3. The distribution of the respondents according to presenting complaint of acute abdomen in (n = 119)

	N	%
Pain duration		
< 24 hours	53	44.9
≥ 24 hours	65	55.1
Site of pain		
1.Epigastrium	1	0.8
2.Hypogastrium	3	2.5
3.Rt. lumber	7	5.9
4. Lf. lumber	8	6.8
5. Umbilical	3	2.5
6. Supra pubic	96	81.4
Accompany pain		
Nausea/vomiting	42	35.6
Nausea/vomiting and spotting/bleeding	4	3.4
Spotting/bleeding	32	27.1
Without other symptoms	40	33.9
Character of pain		
Continuous	64	54.2
Periodic	54	45.8

in this study was ectopic pregnancy, which is comparable with the findings in a teaching hospital in Nigeria, where ectopic pregnancy was the most common indication for surgery (14). The results of this study support several studies that showed ectopic pregnancy was the most common cause for emergency laparotomy among pregnant women (5, 14, 15). In contrast, a study showed that, Pelvic Inflammatory Disease is the most common gynecological emergency in their district hospital at Kasur, Pakistan (16).

In our study most common presenting complaint, was a pain in the supra pubic followed by with nausea/ vomiting. Conversely, a study in Turkey presented vaginal bleeding as the most common complaint followed by abdominal pelvic pain (17).

About 84% of the patients underwent only salpingostomy with or without oophorectomy / ovarian cystectomy / tubal ligation, which is also the most common surgery done for ectopic pregnancy. Nearly 10% patients also underwent appendectomy with or without C/s. This study showed that gynecology and obstetrics emergencies are common in tertiary care hospital, Babol, Iran. Evaluation of women who presents with an acute abdomen is surgery as soon as the diagnosis is made.

Conclusion

The findings were nearly comparable with the findings in other countries data from the present study showed ectopic pregnancy and salpangotomy are the most common cause and common surgery for acute obstetric and gynecologic emergencies among pregnant women in a tertiary care hospital in the pregnant women. However, currently most acute abdomens can be approached laparoscopically (8, 18, 19). But in our hospital, the traditional laparotomy is a common procedure for acute abdominal. Counseling and evaluating the women at high risk of ectopic pregnancy could be beneficial. More than half of patients who referred to the hospital complained their pain lasting more than 24 hours. Therefore, gynecologists can make better management of these cases, if obstetricians and midwives refer the pregnant women with abdominal pain, especially supra pubic pain also accompany with vomiting / nausea timely once the diagnosis of abdominal pain is confirmed. A large prospective study is needed in order to clarify awareness of midwives and obstetricians regarding the acute lower abdomen pain and the availability of the gynecologists for the management of the acute obstetric and gynecologic emergencies among pregnant women.

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Conflict of interest

None declared.

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