ORIGINAL ARTICLE

Spectrum of Pathologies in Patients Presenting with Acute Abdomen during Pregnancy

ANILA ANSAR[1], ANSAR LATIF[2], ASMA NAVAB[3], *AFTAB AHMAD[4], MUHAMMAD NAEED[5], SHER AFGHAN[6]*
[1]Associate Professor, Head of Department Obstetrics & gynaecology, Khawaja Safdar Medical College, Sialkot.
[2]Associate Professor, Head of Surgery Department, Khawaja Safdar Medical College, Sialkot.
[3]House Officer, Surgery Department, Allama Iqbal Memorial Teaching Hospital, Sialkot.
[4]Assistant Professor, Department of Anatomy, M. Islam Medical College, Gujranwala.
[5]Associate Professor, Department of Dermatology, Islam Medical College, Sialkot.
[6]Medical officer, THQ Daska, Sialkot.
Correspondence to Dr. Anila Ansar, Email: ansarlatif2013@gmail.com Cell: 0321-7103994

ABSTRACT

Aim: To see the spectrum of pathological diagnosis its management in cases of acute abdomen in pregnancy, both in OPD and emergency.
Study Design: Prospective Study. Place and Time of study: Department of Surgery, Khawaja Muhammad Safdar Medical College, Sialkot. From April 2016 to December 2018.
Methods: Between April 2016 and December 2018; A total of 239 patients presenting with abdominal pain having gestation of any duration were enrolled and the record maintained of the progress of investigations and management carried in the surgical department. These patients were grouped in groupI and II depending upon their initial presentation whether it was in OPD or in Emergency department. follow up visits conducted and proformas/ questionnaire filled, while subsequent visits were conducted. Following data was recorded: Age, gestational duration, presentation at OPD or emergency, comorbid conditions, Investigations, Blood CE, Bilirubin, alkaline phosphatase, serum amylase, whether admitted or opd treatment given, surgery done or managed conservatively. Complications like wound infection, Investigations like ultrasound abdomen and liver function tests were repeated in follow up visits. Minimum 3 months follow up was mandatory for inclusion in the study.
Results: The diagnosis which were made in patients of Group I and Group II as: 19% patients of Group I & 22% of Group II had Acid peptic disease, 15% of Group I & 6.(% of Group II were having urinary tract infections, 8% of Group I patients had functional pain. Acute appendicitis was a diagnosis in 26% of Group I & 37% of Group II patients, & acute cholecystitis was present in 15% of Group I and 19% of Group II patients. Group I patients having intestinal obstruction were 11% while Group II patients having this problem were also 11%.
Conclusion: Acute abdomen in pregenancy is a quire common presentation both in emergency and opd settings of general surgical department. Although the mainstay of treatment remains conservative treatment to protect from fetal complications but the situations demand emergrncy surgeries due to unavoidable indications to preserve maternal life.
Keywords: Acute Abdomen, cholecystitis, trimester, abortion, precipitate labour.

INTRODUCTION

Acute abdomen is a condition in which patient suffers from severe pain & tenderness in the abdomen, which is often associated with rigidity of muscles also, due to any reason which needs surgery of the abdomen in emergency[1].

In women, this condition can also occur during pregnancy, which can be harmful for both mother and fetus, because approach to its diagnosis and treatment suffers from some difficulties during pregnancy[2]. The reasons of acute abdomen in pregnancy can be the same which cause this problem in non pregnant ladies, such as acute appendicitis, acute cholecystitis, and ileus leading to some serious consequences[3].

Apart from some common conditions resulting in acute abdomen in pregnant females, some conditions related to pregnancy are specific to pregnant women such as ectopic pregnancy and pelvic inflammatory disease. Sometimes, a torsion can occur in some cyst present in the ovary, which also leads to acute abdominal sign and symptoms[4].

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The diagnosis of underlying condition is based upon detailed history, examination, proper recognition of sign and symptoms and investigations, but some radiological investigations are contraindicated during pregnancy like x-rays and CT scan due to their possible harmful radiation effects on fetus[5]. So, significance of prompt understanding of onset, radiation, site and associated features of pain enhances in reaching the appropriate diagnosis[6].

Important investigations to diagnose acute abdominal illness during pregnancy are laboratory and ultrasonography, blood test especially TLC counts are very important in signifying some infection, acute appendicitis etc[7]. The clinical correlation along with investigations work side by side to shape up the diagnosis.

Sometime abdominal x-rays are also performed regardless of pregnancy when they are very much needed. Reduced spectrum of radiological investigations sometimes causes delay in accurate diagnosis and management[8].

Treatment needs a multi disciplinary approach, improvement of vital signs and signs of infection like fever must be taken into consideration immediately[9]. The possible effects on fetus should be avoided as much as possible, because hypoxia, hypovolemia and also the

acidosis cause significant harms to the fetus . Obstetricians and gynaecologist should also be included in the treatment of some acute abdominal problem in pregnant women[10].

PATIENTS AND METHODS

Between April 2016 and December 2018, a total of 239 patients presenting with abdominal pain having gestation of any duration were enrolled and the record maintained of the progress of investigations and management carried in the surgical department. Permission was granted by the institutional Ethical Committee. These patients were grouped in groupI and II depending upon their initial presentation whether it was in OPD or in Emergency department. follow up visits conducted and proformas/ questionnaire filled, while subsequent visits were conducted. Following data was recorded: Age, gestational duration, presentation at OPD or emergency, co-morbid conditions, Investigations, Blood CE, Bilirubin, alkaline phosphatase, serum amylase, whether admitted or opd treatment given, surgery done or managed conservatively. Complications like wound infection, Investigations like ultrasound abdomen and liver function tests were repeated in follow up visits. Minimum 3 months follow up was mandatory for inclusion in the study.

RESULTS

The general data of our patients in the study is shown in Table I.
Table II shows the probable diagnosis.
Table III shows Morbidity associated with different modalities of treatment depending upon presentations in different trimesters.

Table I: General information.

Total no of patients	239
Age	21 to 41 years (mean 29.34 years)
Diabetes mellitus	33(13%)
Hypertension	29(12%)
Jaundice	11(4%)
Group I- OPD presentation	109(45%)
Group II- Emergency	130(54%)
Managed as opd patient	78(32%)
Patients required admission	161(67%)
Conservative management in admitted patients	87(36%)
Surgeries done in patients	74(30%)
Involvement of gynaecologist in patients	7(2%)

Table II: Diagnosis

	Group I	Group II
Acid peptic disease	21(19%)	29(22%)
Urinary tract infections	17(15%)	9(6.9%)
Functional pains	9(8%)	0
Acute appendicitis	29(26%)	49(37%)
Acute cholecystitis	17(15%)	25(19%)
Intestinal Obstruction	13(11%)	15(11%)
Ovarian pathologies	5(4%)	3(2%)

Table III- Morbidity

Complications	First trimester	Second trimester	Third trimester
Repeated admissions	39	19	5
Wound infections	2	3	6
Appendicectomy	13	53	10
Emergency cholecystectomies	5	7	2
Emergency C sections	0	0	6
Precipitate labour	0	0	4
Abortions	7	0	1
Fetal Anomalies	4		

DISCUSSION

Our study showed that 39 patients in first trimester,19 in second trimester and 5 during third trimester admitted repeatedly, while the repeated admissions' were 30,10 & 2 respectively in the study by Theodosopoulos et al[11].

We observed that wound infections were present in 2 patients in 1st trimester, in 3 patients in 2nd trimester and 6 in 3rd trimester, while these were in 1,3 & 7 patients respectively according to the data by Ko CW[12].

Our data presented that appendecectomy occurred in 13 patients of 1st trimester,53 of 2nd trimester and 10 of 3rd trimester, while 6, 45 & 11 patents underwent appendecectomies in 1st , 2nd & 3rd trimester respectively according to the data by Ko C et al[13].

Emergency cholecystectomies were performed in 5,7 & 2 patients in 1st,2nd & 3rd trimester respectively, while it was done in 7,6 & 1 patients in the study done by Kaushal et al[14].

We had 6 such patients in 3rd trimester who were undergone emergency C sections, while they were performed in 8 patients of 3rd trimester according to the research by Pedrosa et al[15].

Four patients had precipitated labour in 3rd trimester, while it occurred in 2 patients in the study by Levine et al[16].

Seven patient in 1st trimester and 1 in 3rd trimester suffered from abortions according to our study, while only 2 patients in 1st trimester had abortion according to the data by McKenna et al[17].

Fetal anomalies developed in 4 patients of 1st trimester pregnancy, while these anomalies were present in 5 patients of 1st trimester according to the data given by Schnarr et al[18].

CONCLUSION

Acute abdomen in pregnancy is a quire common presentation both in emergency and OPD settings of general surgical department. Although the main stay of treatment remains conservative to protect from fetal complications but the situations demand emergency surgeries due to unavoidable indications to preserve maternal life.

Conflict of interests: Nothing to be declared

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