GENERAL SURGICAL PROBLEMS IN PREGNANCY

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SUMMARY

The anatomical and physiological changes caused by pregnancy, pose a threatening challenge in diagnosis and management of pregnant patients with surgical problems. Although the threshold for intervention is high, still every possible, "safe diagnostic modalities must be utilized to manage these patients. Counseling of the mother regarding possible complications forms an important aspect of management. The obstetrician should always go for opinion of surgical colleagues, when ever there is any doubt in the diagnosis of surgical problem in pregnancy.

INTRODUCTION

General surgical problem in pregnancy are relatively uncommon,. The incidence of non-obstetrical surgery is approximately 0.2-2.2%[1] of all patients admitted to surgical ward for various problems in their reproductive life.

Surgical problems in pregnancy can result in potential delay in diagnosis and management. This is due to the anatomical and physiological changes in pregnancy. The pregnant uterus become an abdominal organ at the end of the first trimester, growing to occupy most of the abdominal cavity by term (37-42 week). This abdominal growth of the uterus causes two important effects[2].

1. Displacement of the viscera from its normal anatomical position i.e. appendix.

2. Separation of other viscera from the anterior abdominal wall (producing reduction and alimentation of somatic pain).

Both physiological and pathological clinical features in pregnancy can be shared with certain general surgical conditions. Physiological changes which can lead to this confusion include nausea, vomiting, heart burn, water brash, constipation and frequency of micturation.[3] It is important to differentiate colicky abdominal pain due to general surgical problem, from labour pain in late pregnancy.

The normal laboratory investigations are appropriate for evaluation of pregnant patient with possible general surgical problems, but some alteration of normal ranges must be kept in mind. Like total blood volume is increased in pregnancy.[4] Total red blood cell mass in increased while haematocrit is decreased. The serum amylase and serum transaminase values are with in normal range. Ultrasonography is valuable tool in pregnancy in the evaluation of surgical problems (stone, tumours, etc.).

The aims of study was to document the incidence of general surgical problems in our hospital, the methods of diagnosis, the pregnancy outcome in these patients, the effects of surgery on pregnancy and know, the management of general surgical problems in pregnancy.

MATERIAL AND METHODS

This was a prospective study carried out in lady Reading Hospital Peshawar from 10th January to 10th October 1996 in Gynae "A" unit PGMI/LRH. About 200 patients of reproductive age who were admitted in three surgical units were studied. 35 of them were pregnant. The age of these 35 patients ranged between 18-40 years. These patients with surgical problems were admitted in surgical units but some came to department of Gynaecology where they were treated and them shifted to the respective surgical units.

RESULTS

The results of study are shown in the following tables. Appendicular diseases was the commonest surgical problems in pregnancy second being the gall bladder disease.

There was over all preponderance of second trimester cases.

About the management, the patients with appendicitis 11 had surgery. While appendicular lumps were treated conservatively and interval appendectomy was advised. They had appendectomy after delivery.

Patients of cholecystitis and cholelithiasis were preferred to have conservative treatment. But in those patients who had repeated attacks and did not respond

DIFFERENT SURGICAL PROBLEMS IN PREGNANCY

1. **Appendicular Disease**	15
a. AC appendicitis	9
b. Appendicular lumps	4
c. Appendicular abscess	2
2. **Gall Bladder Diseases**	7
a. Cholecystitis	3
b. Cholelithiasis	4
3. **Urinary tract calculi**	4
a. Renal stones	3
b. Ureteric stone	1
4. **Haemorrhoid**	
Proplapse thrombosed	3
5. **Burn, Trauma, Fire Arm Injury**	
Cellulitis intestinal obstruction	10

TABLE – 1

Trimester wise presentation of these non-obstetrical surgical problem was as follows.

No.	Surgical problems	1st Trimester	2nd Trimester	3rd Trimester
1	Appendicitis	7	6	2
2	G. Bladder diseases	2	4	1
3	Urinary calculi	1	1	2
4	Haemorrhoids	0	2	1
5	Fire Arm Injury	0	4	0
6	Burn	0	2	0
7	Cellulitis	1	0	1
8	Trauma	0	1	0
9	Intestinal obstruction	0	0	1

TABLE – 2

Management of surgical problems in pregnancy is as follow.

No.	Disease	Surgery (C.S.)	Surgery (T.A.)	Conservative
1	Appendix disease	11	0	4
2	G.B. disease	4	0	3
3	Renal calculi	0	0	4
4	Fire Arm Injury	4	0	0
5	Haemorrhoid	0	2	1
6	Burn	0	0	2
7	Cellulitis	0	0	2
8	Trauma	1	0	0

TABLE – 3

to conservative treatment, cholecystectomy was done.

Patients of renal calculi burn, cellulitis were treated conservatively.

While Fire arm injury (FAI). Patients underwent laparotomy. No mortality was observed. There was one case of blunt trauma. She had laparotomy. In all above cases there was no case of mortality, however morbidity was observed in 3 patients (FAI =2, Trauma =1).

The clinical history of pain in right iliac fossa or peri-umbilical pain radiating to the lower abdominal quadrant was the most frequent and presenting symptom of acute appendicitis occurring in nine patients. Seven (20%) patients presented with pain in right flank region. 5 (14.8%) patients of gall bladder disease presented with pain in right hypochondrium while 2 (5.17%) patients with pain umbilical region. Nausea and vomiting was present in all patients. 24 patients complained of fever. Pain anal region with bleeding per rectum was present in 3 patients. They had prolapsed piles, which were managed conservatively by local ice packing and analgesics.

Mass observed in 6 (17.14%) patients of appendicular lump and appendicular abscess.

Due to these post-operative complications these patients had prolonged stay in hospital.

DISCUSSION

A total 200 patients admitted in 9 months duration (10th January –10th October, 1996), in reproductive age group were studied. 35 patients presented with general surgical problems during pregnancy. Age of these patients presented with general surgical problems ranged between 18-40 years. Most of them were belonging to rural areas. Outcome of these 35 patients, 5 patients were primigravida, 123 patients were multigravida and 7 patients were grand multigravida.

Appendicitis was the communist surgical problem in pregnancy as shown in the study and literature.[5,6] incidence being

SIGN AND SYMPTOMS OF SURGICAL PATIENTS

Symptoms/Signs	No. of patients	Percentage
1. Pain		
RIF	9	25.7%
RHC	5	14.28%
Right Flank	7	20%
Epigastrium	2	5.17%
Umbilical region	3	8.7%
2. Nausea + vomiting	17	48.57%
3. Fever	24	68.58%
4. Dysuria	7	20%
5. Pain anal region + bleeding P/R	3	8.57%
6. Abdominal tenderness		
RIF	11	31.4%
RHC	7	20%
7. Mass in RIF	6	17.14%

TABLE – 4

COMPLICATIONS

Post-operative	Fever	23
	Pain	35
	Wound infection	10
	Wound dehiscence	2
	Urine retention	12

TABLE – 5

1:2500. Because of the physiological changes it carries a high mortality and with increasing gestation.[7] Gall bladder disease was the second commonist cause. Biliary stasis and raised cholesterol level in pregnancy may predispose to gall stone formation. Incidence being 3.5%.[8] we had 7 patients with gall bladder diseases,[4] with cholylithiasis and 3 had cholycystitis. Management in pregnancy tend to be conservative, but cholycystectomy may be necessary in certain circumstances.[9] 4 of the patients who had repeated attacks of cholycystitis had cholycystectomy. There were 4 with urinary calculi, 3 patients with prolapsed thrombosed pile, while rest of the patients presented with cellulitis, F.A.I. intestinal obstruction, burn and trauma. About 11 patients had amenorrhoea between 8-12 weeks, 20 patients with amenorrhoea between 14-22 weeks and 8 patients had amenorrhoae above 26 weeks. Diagnostic criteria for these patients was history, clinical findings, ultrasonography and in some cases laparotomy. About the clinical findings, 26 patients presented with pain abdomen, (68.58%), patients with fever, 48.57% with nausea and vomiting, 17.14% patients with mass in right iliac fossa. Abdominal tenderness was presented in 51.4% and per rectal bleeding in 8.51%.

PREGNANCY OUTCOME

No.	Outcome	No. of Patients
1	Abortion	6
2	Pre-term Labour	2
3	Full term	3
4	Not known	24

TABLE – 6

There was one case of 35% burn with 8 months pregnancy treated conservatively. One case of blunt trauma with 6 months pregnancy underwent laparotomy. Routine laboratory investigations were performed in all cases. Ultrasound was used for diagnosis in most of cases, while radiological investigation done only in selected cases. Surgery performed in about 60% cases while the rest were treated conservatively. There was no mortality observed in these 35 patients. About the pregnancy outcome 6 patients aborted, 3 patients underwent pre-term labour, 4 patients reached full term. While the outcome of 24 patients not known because they had not come for follow up. The average stay in hospital was 3 days range between 2-6 days. Post-operatively 12 patients developed urinary retention, 10 patients wound infection while 2 patients developed wound dehiscence.[11] patients had come for follow up, 24 patients had best follow up.

All pregnant patients with possible surgical problems should be examined by both surgeons and Gynaecologist as the diagnosis of surgical problems in pregnancy is a team work. All possible necessary investigations should be performed before embarking on surgery.[4] The hazards of surgery and anaesthesia should be explained to the patients. Radiological investigations should be avoided until and unless required. Drugs having toxic effects on fetus should be avoided.[3] Patient should be in left lateral position during surgery to avoid venocaval compression in supine positions, thus preventing utero-placental insufficiency and fetal hypoxia.[4] Because intra-uterine asphyxia is a major risk of the fetus consequent to maternal surgery, it is important to monitor and maintain maternal arterial PO_2, O_2 carrying capacity, as well

as electronic monitoring of fetal heart rate throughout operation and post-operative period.[4]

CONCLUSION

In this nine month study of 35 pregnant patients with surgical problems were managed jointly by surgeons and obstetrician. Routine laboratory investigations were performed in all cases. Ultrasound used in most cases. While radiological investigations done only in selected cases. The commonest surgical problem in pregnancy is appendicitis the second being gall bladder diseases. The anatomic and physiological changes can lead to diagnostic dillema.[10] Surgery performed in about 60% cases while the rest treated conservatively. The progress outcome could not be exactly assessed from this data, as majority did not come for follow up.

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