ORIGINAL ARTICLE

Determinants of Gynaecological Emergencies at Surgical Floor of Mayo Hospital, Lahore

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ABSTRACT

Objectives: To determine the frequency and types of gynecological emergencies coming to surgical floor and to identify the clinical features which help to differentiate between gynecological and surgical causes of acute abdomen.
Study design: Descriptive case series
Place and duration of study: Surgical Emergency, Mayo Hospital, Lahore. Six months from 1st August 2008 to 31st January 2009.
Subjects and method: One hundred female patients with different gynecological emergencies having different clinical features admitted in Surgical Wards.
Results: Out of hundred patients there were 46% patients having generalized abdominal pain, 8% lower abdominal pain and right iliac fossa pain in 46%. Nausea in 79% patients, vomiting 74%, anorexia 77%, absolute constipation 7% and relative constipation 8% and fever in 22%. Tachycardia was present in 91%, abdominal distension 48%, vaginal discharge 24% and mass abdomen 7%. The mean age was 23.60±6.53 years. The frequency of gynecological emergencies was as pelvic inflammatory disease 9%, ruptured ectopic pregnancy 7%, unilateral ovarian cyst with inflamed appendix 15%, ruptured ovarian cyst with inflamed appendix 28%, adnexal torsion 4%, peritonitis with uterine and intestinal perforation 20%, with uterine perforation only 9%, Post C-section peritonitis 6% and ovarian mass 2%.
Conclusion: This study provides a concise review focusing on improving clinical assessment and early diagnosis of gynecological emergencies for better management in female patients with acute abdominal symptoms.
Key words: Ruptured ectopic pregnancy, ruptured ovarian cyst, adnexal torsion, uterine perforation,

INTRODUCTION

A number of females having acute abdomen with gynecological pathologies are admitted in general surgical wards presenting to surgical emergency floor as acute abdomen[1]. There is little or no escape from gynecological problems which present not infrequently in the course of general surgical patients. General surgeon has sometimes to face problems arising from an acute abdomen due to gynecological causes. Such conditions are mainly found in women of reproductive age. So clinician must be familiar with appropriate techniques of clinical assessment, diagnosis and management of such cases because gynecological emergencies are inevitable in general surgery due to close resemblance of clinical features[2].

Among gynecological emergencies presenting at surgical floor, the most common are pelvic inflammatory disease, ectopic pregnancy (ruptured or un-ruptured), perforation of uterus and intestine following Dai-handling, intrauterine devices and dilation and curettage (D&C), adenexal torsion, ruptured functional ovarian cyst (hemorrhagic) and various others like intestinal obstruction due to ovarian malignancy or uterine fibroids. So the general surgeon should be prepared to encounter and handle gynecological emergencies, even those in critically ill states. Understanding the tenets of diagnosis helps the surgeon narrow the etiology and guide appropriate treatment[3,4,5].

The diagnosis of an acute gynecological condition can be difficult due to its close resemblance to various acute surgical abdominal conditions, but an in depth history, clinical examination including both obstetric and gynecological, supported by baseline blood investigations such as complete blood count, blood sugar levels, serum electrolytes, urea and creatinine, pregnancy test, complete urine examination, X-ray abdomen, ultrasonography, diagnostic and therapeutic laparoscopic findings, operative findings, biopsy report and response to antibiotics[6,7,8].

Morbidity and mortality is low with early presentation and high with late presentation in these patients. Reluctance to operate in such cases adds

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unnecessary delay which increases morbidity. If surgical etiology is suspected in a young female with acute abdominal pain, the patient should be examined and followed closely both by the surgeon and gynecologist[1,2].

The purpose of this study is to improve clinical assessment and preoperative diagnosis of gynecological emergencies coming to the surgical floor for better management in female patients with acute abdominal symptoms.

METHODOLOGY

This descriptive study was conducted on surgical emergency floor of Mayo Hospital, Lahore with six months (1st August 2008 to 31st January 2009) duration. Data was collected using Non-probability; Purposive sampling technique with inclusion criteria: all female patients with abdominal pain/signs and symptoms of acute abdomen presenting in emergency department. Exclusion criteria includes: female patients below 12 years of age, female patients with history of abdominal trauma. After getting informed consent one hundred female patients fulfilling the inclusion criteria, detailed history and clinical examination (general physical examination and systemic examination) was carried out in all cases. The diagnosis in all cases was mainly based on presentation of patients and findings on abdominal and pelvic examination supported by baseline investigations, x-ray abdomen, diagnostic laparoscopic findings, biopsy report and response to antibiotics. .The data was entered and analyzed by using SPSS version 14.0. The variables to be analyzed were quantitative variables and qualitative variables. The quantitative variables such as age and duration of presenting complaints were presented as Mean and Standard Deviation. The qualitative variables such as types of gynaecological emergencies, clinical features, signs and symptoms along with physical findings, etiological factors, and operative findings presented as percentages and frequencies.

RESULTS

The study sample comprised of 100 patients with mean age was 23.60±6.53 years (ranged from 13 to 65 years) figure 1.Table 1 shows the breakup of gynaecological emergencies i.e. pelvic inflammatory disease 9 (9%), 7 (7%) had ruptured ectopic pregnancy, 15 (15%) patients had unilateral cyst with inflamed appendix and 28 (28%) patients had ovarian ruptured cyst with inflamed appendix. Peritonitis due to uterine perforation only was 9% and both uterine perforation with intestinal perforation was 20% due to dai handling and IUCD. Post C-section peritonitis was 6%. Table 2 shows presenting complaints and physical findings. Out of 100 patients, 46(46%) were complaining of generalized abdominal pain, lower abdominal pain was in 8(8%) patients, 33(33%) patients having vaginal discharge with 91% patients with tachycardia and 100% with abdominal tenderness.

Fig. 1: Age of patients (n=100)

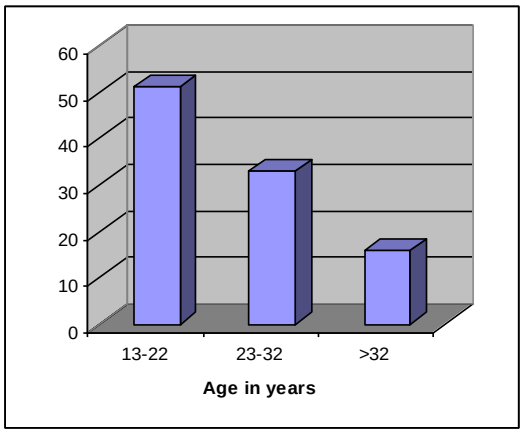

Table 1: Frequency of Gynecological Emergencies (n=100)

Types of Gynecological Emergencies	**=n**
Ectopic pregnancy (ruptured)	7 (7%)
Ovarian cyst (unilateral cyst with inflamed appendix)	15 (15%)
Ovarian cyst (ruptured with inflamed appendix)	28 (28%)
Adnexal torsion	4 (4%)
Peritonitis due to	
Perforation of uterus with intestinal perforation	20(20%)
Dai handling	19(19%)
IUCD	1(1%)
Perforation of uterus only	9(9%)
Dai handling	7(7%)
IUCD	2(2%)
Post Pelvic surgery (C-Section) peritonitis	6(6%)
Pelvic Inflammatory Disease	9(9%)

Ovarian Mass (Teratoma) causing intestinal obstruction	1(1%)
Ovarian Mass (Teratoma) not causing intestinal obstruction	1(1%)

Table 2: Frequency of presenting complaints and physical findings of patients (n=100)

Presenting Complaints	**%age**	**Physical Finings**	**%age**
Generalized abdominal pain	46(46%)	Tachycardia	91(91%)
Lower abdominal pain	8(8%)	Fever	22(22%)
Pain right iliac fossa	46(46%)	Abdominal Distension	48(48%)
Nausea	79(79%)	Abdominal tenderness	100(100%)
Vomiting	74(74%)	Bowel sounds Audible Absent	55(55%) 44(44%)
Anorxia	77(77%)	Mass Palpable	7(7%)
Constipation Relative Absolute	8(8%) 77(7%)	Per-vaginal examination Per-vaginal discharge Gut coming through vagina	31(31%) 2(2%)
Fever	22(22%)		
Vaginal discharge	24(24%)		

DISCUSSION

The age at presentation in this study is comparable to the international studies. The mean age of patients was 23.60±6.53 years that were comparable with other studies. In a study carried out by Hassan et al that the mean age was 24 years[9]. Another study done by Rehman et al a total of 22 patients, mostly young with an average age of 26.86 years[5].

Another study carried out by Santosh et al, the patients included in study comprised of women of reproductive age with lower abdominal pain for longer than 6 months, those who had lower abdominal pain and dysmenorrhea for more than 6 months and/or those who had complaints of lower abdominal pain and infertility. In terms of patients' complaints, the maximum duration of lower abdominal pain was found to be 36 months which was tolerated by 6 patients (12%). The largest number of patients (38%) tolerated the pain from 19-30 months followed by 10(20%) patients having pain for 6-12 months and 7(14%) for 13-18 months[10,11]. In comparison with other studies the present study shows the lower abdominal pain in 5(5%) patients.

A study carried out by Bongard and colleagues evaluated 118 women who presented with an unclear diagnosis of appendicitis or pelvic inflammatory diseases[12]. The present study shows the pelvic inflammatory disease in 9(9%) patients.

In a study done by Naila and Humaira out of the 65 cases, 46(70%) were ruptured ectopic, 19(29.2%) were intact. 59(90.7%) were ampullary and 6(9.2%) were isthmic. In a study carried out by Sindos the ectopic pregnancy is a significant cause of maternal morbidity and mortality. The study group was divided into two subgroups: ruptured ectopic pregnancies and un-ruptured ectopic pregnancies. Two hundred and twenty-three cases of ectopic pregnancy were retrieved in the studied period. One hundred and forty-four (65%) of them were cases with ruptured ectopic pregnancies and 79(35%) were cases with ruptured ectopic pregnancies. Fifty-five of the 144 patients (38.2%) with ruptured ectopic pregnancy and 18 of the 79(22.8%) patients with ruptured ectopic pregnancy had a past history of ectopic pregnancy. Moreover, there was a statistically significant positive association between rupture and parity (1.19±1.02 for ruptured cases vs. 0.85±0.89 for ruptured cases[13,14]. In current study shows the ectopic pregnancy (ruptured) in 7% of patients.

In a study done by Bakkum the acute pelvic pain in women is a common diagnostic dilemma encountered by the gynecologist[15]. In another study done by Landers and Sweet found that 50% of women presented with fever, nausea (26%), vaginal discharge (28%) and abnormal vaginal bleeding (21%). Although the classic presentation includes abdominal pain, pelvic mass on examination, fever, and leukocytosis, and they found that 35% of women who had a tubo-ovarian abscess (TOA) were afebrile and 23% had a normal white blood cell count[16]. The present study shows the pelvic inflammatory disease is 9% ruptured ectopic pregnancy is 7%, nausea 76%, vomiting 75%, anorexia 73% and fever in 23% of patients which is comparable with the above mentioned studies.

In a study carried out by Bouguizane the adnexal torsion accounted for 14.8% of surgically treated adnexal tumors[17]. The present study shows 4(4%) adnexal torsion. Hemoperitonium without uterine of intestinal perforation is 4% in this study.

CONCLUSIONS

In female patients having acute abdomen with gynaecological pathologies, ruptured ovarian cyst with inflamed appendix was the most common pathology presenting at surgical floor. Besides uterine perforation with intestinal perforation due to Dai-handling/ IUCD insertion was the second most

common gynecological pathology at surgical floor. Intact ovarian cyst with inflamed appendix , pelvic inflammatory disease and uterine perforation due to IUCD insertion/ Dai-handling was relatively less common presenting pathology. While frequency of ruptured ectopic pregnancy, adnexal torsion and haemoperitonium with uterine perforation remained very low and only 1% case of endometriosis presented at surgical floor.

The most common presenting complaint was pain right iliac fossa with nausea, vomiting and anorexia and generalized abdominal pain. The frequency of fever, constipation and lower abdominal pain remained low. Along with tachycardia was the most common physical finding associated with abdominal distension, vaginal discharge, spotting or a mobile pelvic mass.

We recommend the importance of detailed history, thorough clinical examination and appropriate preoperative investigations for female patients with high suspicion of acute abdomen due to gynecological pathologies for better management at surgical floor.

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