ORIGINAL ARTICLE

Ectopic Pregnancy- Presentation and Management at Allama Iqbal Memorial Teaching Hospital Sialkot

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ABSTRACT

Aim: To analyze the outcome of management of ectopic pregnany as regards its different presentations.
Study Design: Prospective study.
Place & duration of study: Department of Gynaecology and Obstetrics, Allama Iqbal Memorial Teaching Hospital. affiliated to Khawaja Muhammad Safdar Medical College, Sialkot from August 2017 to October 2020.
Methods: From August 2017 to October 2020.; all patients serially presenting in the department of gynaecology both in emergency and outpatients' department of Allama Iqbal Memorial hospital. The patients were categorized in three groups: Group I- Acute Ectopic Pregnancy, Group II- Subacute Ectopic Pregnancy and GroupIII- Asymptomatic. A prospective clinical practice study was carried. All patients with Ectopic Pregnancy during this period were included. History and physical examination, investigations done, ultrasonographic findings and intraoperative findings were recorded.
Results: Group- I Acute Ectopic pregnancy made the most of workload and included 442(65.57%) patients. Group-II Subacute Ectopic Pregnancy had 162(24.03%) patients and Group- III Asymptomatic patients were 70(10.38%). The main presenting symptoms were pelvic pain in the acute group while Subacute Group -II presented with adnexal masses while the Asymptomatic group were diagnosed on antenatal check up with the help of ultrasonography. The Group -I was managed by surgical laparotomies or stable cases were managed by laparoscopic procedures. a few cases of subacute group that were not fulfilling criteria were operated and some of the Group-III Asymptomatic; salpingostomies open 112(24.66%), open salpingectomies 313(68.94%), laparoscopic salpingostomies 6(1.32%) and laparoscopic salpingectomies 11(2.42%), 9(1.98%) and 3(0.66%). respectively in Group I, II and III. Wound infection was encountered 23(5.06%).
Conclusion: The ectopic pregnancy presents in a variety of situations and the treatment of acute ectopic pregnancy presents real challenge of mortality and while the treatment of suacute cases is associated with much morbidity and complications leading to patients' dissatisfaction.
Keywords: Acute, Subacute, Asymptomatic, Ectopic, laparotomy, Methotrexate.

INTRODUCTION

Ectopic pregnancy presents a burden of almost 1%–2% out of all pregnancies in obstetric and gynaecological practice, it may present as sudden hemorrhage and leads to maternal mortality. The studies advocates that the frequency of the problem on the decline during the last two decades[1,2].

In acute presentations, there is short duration between conception and rupture of tubes and it is usually 6 or 8 weeks. This is such a period that is confusing and taxes the clinical acumen of doctors working as emergency physicians, family physicians and gynaecologists; to have a definite diagnosis. Etiological factors include sexually transmitted infections which may manifest or remain occult and leads to damage to the mucosa of fallopian tubes. The laparoscopic findings are usually adhesions in periadnexal region. Its incidence is much higher in areas where sexually transmitted infections are prevalent[3,4].

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The factors involved in ectopic pregnancy are studied at various centers and amongst those, the former and current smokers, alcohol consumption and role of inutero exposure to diethylstilbestrol (DES); leads to almost twice the increased risk as compared to the normal population. These agents leads to dysfunction of the normal motility of the fallopian tubes. Investigators also present a low level of serum E_2 and P levels in patients with ectopic pregnancy may be a reflection of defective corpus luteum formation at ovulation or changed bioactivity of human chorionic gonadotrophins hCG produced by the blastocyst. These steroids have a potent action in the motility of oviduct so the altered transportation of fertilized egg in the fallopian tubes may occur[5].

If the conceptus is out of uterus, these are usually picked up in 6th to 9th week of amenorrhoea by antenatal sonography and these patients have non specific symptoms. Extra uterine can be wholly asymptomatic which is one end of the presentation while it may present with pelvic pain in tubal abortion.

Extrauterine pregnancy and or pregnancy of unknown location; both can be characterized by lacking finding an normally sited pregnancy on sonographic examination. So diagnosis is suspected on raises levels of hCG. On sonography; if only an empty, round structure is seen, it may be a pseudogestational sac associated with an ectopic pregnancy[6].

Misdiagnosis can be due to an unreliable medical history. The infections with Chlamydia Trachomatis evidenced by antibodies to it has also been a proven factor even if there has been no history of STI. The ectopic pregnancy may occur with a normally functioning fallopian tubes with no obvious damage to the mucosa.The role of glycosaminoglycans in the outer coating of fertilized eggs that have interaction with the ciliated fimbria is also an important factor in helping the transport of egg. Its abnormalities may be involved in its causation[7].

The treatment of ectopic pregnancy has been simplified after the introduction of medical therapy by the use of Methotrexate which is an established entity in the treatment but much depends on an early diagnosis. This form of medical therapy has reduced the need for surgical treatment in quite a big quantum of the cases but again the deciding factor is Early diagnosis[8].

Evidences are available exclusively for systemic treatment with methotrexate. Indications of treatment by methotrexate include hCG<3000 iu/l, rising hCG level in 48hours with normal: hemoglobin, leukocytes, platelets, liver enzymes and diameter of gestational sac <4 cm. the indications of surgical treatment are rupture, hemodynamic instability, symptoms (e.g., pain), diagnostic laparoscopy and suspected heterotopic pregnancy[9,10].

The surgery is required in late cases where the rupture of fallopian tubes have occurred or is imminent or there is a strong evidence of pelvic inflammatory disease. Laparoscopy has been employed more and more with the intent of preservation of tubes in doing that Salpingostomy in a linear fashion is practiced now a days as compared to the need for salpingectomy. However, the expectation of future intrauterine pregnancy is always there but the studies have confirmed that there is no major difference in the rates of fertility in groups undergoing salpigostomy and salpingectomy. The operative procedures in practice are organ- (tube-) preserving surgery like salpingotomy and segmental resection (partial salpingectomy). While the Indications for an ablative procedure (salpingectomy) are uncontrollable bleeding, marked tubal destruction , ipsilateral recurrence and prior ipsilateral sterilization[11,12].

The surgical procedure is usually decided on factors found intraoperatively like the aggressive nature of the ectopic pregnancy, the size of the fertilized egg within the tubes; but above all the surgical skills of the operating gynaecologist also plays a decisive role as salpingostomy is technically demanding as compared to salpingectomy which is easy to undertake. However postoperative hysterosalpingography should be performed to see the tubal patency on both sides if salpingostomy is done[13,14,15].

The workload of any gynaecology department is occupied by this important entity same is there in our department. No study has been conducted in this region on this important pathology; so, we framed a study design and collected the data for its spectrum of presentation and outcome of the management being practiced at Allama Iqbal Memorial Teaching Hospital affiliated to Govt. Khawaja Muhammad Safdar Medical College, Sialkot.

PATIENTS AND METHODS

From August 2017 to October 2020; all patients serially presenting in the department of gynaecology both in emergency and outpatients' department of Allama Iqbal Memorial hospital. The patients were categorized in three groups: Group I- Acute Ectopic Pregnancy, Group II- Subacute Ectopic Pregnancy and Group III- Asymptomatic. A prospective clinical practice study was carried. All patients with Ectopic Pregnancy during this period were included. History and physical examination, investigations done, ultrasonographic findings and intraoperative findings were recorded. Those patients who were not operated or did not had follow-up completed for 3 months minimum were excluded from the study. Data was entered and analysis done by SPSS v 22.

RESULTS

This study was based by serially enrolling 713 patients; however 39 patients were lost to follow up. The follow up period was 3 months (5+ 9.89 months). A total of 674 patients were included in the study. The demographic data is shown in Table I. Presentations in different groups are shown in Table II. Patients undergoing surgery both open and laparoscopic procedures (Table IV). Secondary infertility was based on hysterosalpingoscopy and laparoscopy.

Table I- Study in brief

Total no of patients enrolled/ consent	713	
Lost to follow up	39	
Actual no in the study data	674	n=674 (100%)
Age	19- 46	(mean of 29+ 3.6)
Diabetes	126	18.69%
History of PID	102	15.13%
Previous D & C	92	13.64%
Follow up duration	3-12 month	(mean of 3+ 2.2)
Preoperative diagnosis	640	94.95%
Intraoperative diagnosis	34	5.04%
Group I- Acute Ectopic Pregnancy	442	65.57%
Group II- Chronic Ectopic Pregnancy	162	24.03%
Group III- Asymptomatic Ectopic Pregnancy	70	10.38%
Follow up period	3-36 months	5+ 9.89 months

Table II – Comparative statistics of presentations

	Group I-	**Group II-**	**Group IIII**
Pelvic pain	442(100%)	23(14.19%)	-
Severe shock	215(48.64%)	-	-
Nonspecific complaints	106(23.98%)	49(30.24%)	-
Vaginal spotting	89(20.13%)	13(8.02%)	-
Abdominal pain radiating to shoulders	41(9.27%)	-	-
syncope	51(11.53%)	-	-
Cystic adnexal tumours	-	109(67.28%)	-
Solid adnexal tumours	-	53(32.71%)	-

Table III: Asymptomatic ectopic pregnancy (n=70)

Picked on U/S in 6-7 week of gestation	39	(55.71%)
Picked on U/S in 8-9 week of gestation	22	(31.42%)
Picked on U/S in 10th week of gestation	6	(8.57%)
Picked on U/S in +10 weeks of gestation	3	(4.28%)

Table IV: Surgical Procedures (454)

	Group I	Group II	Group III
Salpingostomy (open)	112 (24.66%)	-	-
Salpingectomy (open)	313(68.94%)	-	-
Salpingostomy (laparoscopic)	6(1.32%)	-	-
Salpingectomy (laparoscopic)	11(2.42%)	9(1.98%)	3(0.66%)

Table V Complications of treatment (n=454)

Wound infection	23	5.06%
Mortality	7	1.54%
Secondary Infertilty	9	1.98%

DISCUSSION

The data of our study shows that Group- I i.e., Acute Ectopic pregnancy made the most of workload and included 44(65.57%) patients. Group -II Subacute Ectopic Pregnancy had 162(24.03%) patients and Group- III Asymptomatic patients were 70(10.38%).These are similar to the data presented by Kirk et al[18], Mol et al[19]. The main presenting symptoms were pelvic pain in the acute group while Subacute Group -II presented with adnexal masses while the Asymptomatic group were diagnosed on antenatal check up with the help of ultrasonography.

The Group -I was managed by surgical laparotomies or stable cases were managed by laparoscopic procedures. A few cases of subacute group that were not fulfilling criteria were operated and some of the Group -III Asymptomatic; salpingostomies open 112(24.66%), open salpingectomies 313(68.94%), lap. salpingostomies 6(1.32%) and laparoscopic salpingectomies 11(2.42%), 9(1.98%) and 3(0.66%). respectively in Group I, II and III. These findings are comparable to the results presented by the studies byKirk et al[18], Mol et al[19], Capmas et al[20], D' Hooghe et al[21]. Armbrust et al[22]. Wound infection was encountered 23(5.06%), Mortality 7(1.54%) and Secondary infertility 9(1.98%) same findings were presented by D' Hooghe et[21], Armbrust et al[22].

CONCLUSIONS

The ectopic pregnancy presents in a variety of situations and the treatment of acute ectopic pregnancy presents real challenge of mortality and while the treatment of suacute cases is associated with much morbidity and complications leading to patients' dissatisfaction.

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Conflicts of interest: Nil

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