



ANALYSIS OF STRATEGIES ADOPTED IN MANAGEMENT OF ECTOPIC PREGNANCIES TO ARRIVE AT NIL MORTALITY IN TERTIARY CARE HOSPITAL

Gynaecology

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ABSTRACT

INTRODUCTION: Ectopic pregnancy is a life-threatening condition. Rising trend in incidence of ectopic pregnancies necessitates awareness about risk factors, resultant morbidity and mortality. **AIMS & OBJECTIVES:** Aim of the study was to determine the incidence, clinical presentation, risk factors, morbidity and mortality associated with ectopic pregnancy at tertiary care hospital. **MATERIALS METHODS:** Retrospective analysis of ectopic pregnancy was done in dept. of OBG, Vanivilas Hospital, Bangalore medical college and research institute from Sept-2016 to Sept-2018. The following parameters: age, parity, gestational age, risk factors, clinical presentation, site of ectopic, mode of treatment and morbidity were noted. **RESULTS:** Out of 30725 deliveries, 294 were ectopic pregnancies (0.89 %). Ruptured were 256(87.07%) and unruptured were 38 (12.92%). 9 un-ruptured ectopic pregnancies ended in laparotomy. Women with age 20-30yrs had highest incidence (51.7%), more than 30yrs had (41.83%) and with least below 20yrs (6.46%). Ectopic pregnancies were common in multiparous (85.03%) women than primigravida (14.97%). Common symptoms: abdominal pain (86.04%), amenorrhea (93.87%), bleeding per vagina (5.14%), asymptomatic (6%) patients. Urine pregnancy test positive in 94.89%. etiology was pelvic infection (18.02%), infertility (7.01%), previous ectopic (8.84%), contraception (5.78%), tubal surgeries like tubectomy (11.56%, BAT 4.36% and LTO 7.20%). Right sided ectopic (67.00%) was more common. Site of ectopic: Common in fallopian tube- ampullary region (59.86%), cornual (8.16%), isthmus (12.58%), fimbria (3.74%), followed by ovarian ectopic (1.36%) then cervical (0.34%), rudimentary horn pregnancy (0.68%). About 87.07% of ectopic was ruptured, half of these patients presented with shock at the time of presentation. Tubal abortions were seen in 19.04% of patients. Most of cases being ruptured ectopic pregnancies, salpingectomy in 89.05% and salpingo-oophorectomy in 1.02% was done. Morbidity was blood transfusion (87.75%), wound complications 4.76% and mortality rate was nil. **CONCLUSION:** Early diagnosis, identification of underlying risk factors and timely intervention in the form of conservative or surgical treatment will help in reducing the morbidity and mortality associated with ectopic pregnancy.

KEYWORDS

INTRODUCTION

Ectopic pregnancy is the leading cause of maternal death during the first trimester of pregnancy, accounting for approximately 10 % of all pregnancy-related deaths(1). It has been shown to reduce subsequent fertility and increase the chances of subsequent ectopic pregnancy. The identified risk factors for ectopic pregnancy include age, previous ectopic pregnancy, previous pelvic surgeries, use of intrauterine contraceptive devices, female sterilization, history of pelvic inflammatory disease, history of infertility and smoking(2). Early diagnosis and timely effective management will result in fewer complications. There is increased frequency of ectopic pregnancy after IVF and related techniques. Tubal pregnancy may be due to factors that retard the passage of fertilized ovum. PID is the commonest cause of ectopic pregnancy. It may be due to STI, mainly chlamydia and gonorrhea and others being post-abortion, puerperal or secondary to an extra genital pelvic infection or surgery(1). According to ACOG, prior PID due to Chlamydia Trachomatis is the most common risk factor. It has been reported by Westrom that chances of ectopic after one episode of salpingitis is 12.8%, 30% after two episodes and nearly 75% after three episodes of salpingitis(2). The tubal epithelium extends into the myosalpinx forming a true diverticulum. There will be abnormal myometrial electrical activity over the diverticula favours ectopic implantation. The risk of tubal pregnancy after any sterilization procedure is 5% to 16%(1). Salpingitis Isthmica Nodosa is a non-inflammatory pathologic condition of the tube(1). Endo-salpingitis damages the mucosa and may entrap the migrating embryo, leading to ectopic implantation(1). Exosalpingitis give rise to peri-tubal adhesions, impairing peristaltic movements, giving rise to inadequate transportation.

METHODOLOGY

Study design: Descriptive analysis.

Source of data: Ectopic pregnancies treated in Vanivilas hospital, BMCRI, Bengaluru.

Study period: From Sept-2016 to Sept-2018.

Sample Size: 294 ectopic pregnancies treated at vanivilas hospital, BMCRI, Bengaluru.

Inclusion criteria: All the cases diagnosed as ectopic pregnancy and

admitted to Vanivilas hospital during the study period

Exclusion criteria: All intrauterine pregnancies.

The case sheets of the patients with ectopic pregnancy were traced through the labor ward registers and operation theatre registers. Information regarding the total number of ectopic pregnancies in the study period, details of demographic characteristics, clinical symptoms and signs, treatment, risk factors for the ectopic pregnancy as well as associated morbidity and mortality were obtained.

Statistical analysis: Data was collected and tabulated as shown in results. Statistical analysis was done using Microsoft Excel. Frequency and percentage of each parameter was calculated and analyzed.

RESULTS

Out of 30,725 deliveries, 294 were ectopic pregnancies with incidence being 0.89%. Ruptured were 256(87.07%) and un-ruptured were 38 (12.92%). 9 un-ruptured ectopic pregnancies ended in laparotomy due to various reasons.

Table-01: Distribution of cases according to age

Age	Cases	Percentage
<20 years	19	6.46
21-30 years	152	51.7
>31 years	123	41.83

Table-02: Distribution of cases according to parity

Parity	Cases	Percentage
Primigravida	44	14.97
2 nd gravida	117	39.79
3 rd gravida	97	33
4 th or more	36	12.24

Table-03: Distribution of cases according to risk factors

Risk factor	Cases	Percentage
PID	53	18.02

IUCD	15	5.08
OCB	02	0.7
Prev-ectopic	26	8.84
Infertility	20	7.01
Tubal-surgery	34	11.56

Image showing sites of ectopic pregnancy

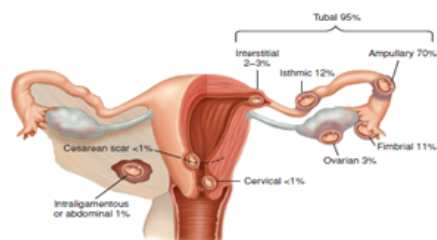


Table-04: distribution of cases according to site of ectopic

Ectopic site	Cases	Percentage
Ampullary	154	59.86
Isthmic	32	12.58
Infundibular	21	8.16
Cornual	10	3.74
Ovarian	4	1.36
Cervical	1	0.34
Rudimentary horn	2	0.68
Tubal abortion	49	19.04

Table-05: Distribution according to clinical presentation

Presentation	Cases	Percentage
Amenorrhea	276	93.87
Pain abdomen	253	86.04
Bleeding PV	15	5.14

Table-06 distribution according to Hemoglobin at admission

Hb in gm/dl	Cases	Percentage
<7	82	28
>7	212	72

Table-07: Distribution according to Morbidity and Mortality

Morbidity	Cases	Percentage
Blood transfusion	260	87.75
ICU admission	5	1.54
Wound complication	14	4.76
Mortality	00	00

Table-08: Distribution according to treatment modality of ruptured ectopic pregnancies

Modality	Cases	Percentage
Partial salpingectomy	246	83.67
Salpingectomy	16	5.44
Salpingo-oophorectomy	03	1.02

correlating with the study done by Bhavna, et al. [8] 22.7% of the cases with ectopic pregnancy. 14.55% of patients had history of previous abortion which is close to the study done by Khaleeqe F et al. [9] (12.9%). The relationship between prior abortions and ectopic pregnancy is explained by the post-abortion infections leading to tubal damage.

In our study group, 7.01% of the women with ectopic pregnancy were infertile which is correlating with the studies done by Panchal D, et al. [2] (8.66%) and Samiya Mufti, et al. [1] (8.07%). In our study group, 8.84% of the women had history of previous ectopic pregnancy which is correlating with the studies done by Dr. Samiya Mufti, et al. [1] (7.26%) and Uzma Shabab, et al. [10] (8%).

There is increased risk of ectopic with previous ectopic pregnancy because it reflects the underlying tubal pathology which is almost always bilateral. In our study group, 11.56% of the women with ectopic pregnancy had tubal sterilization which correlates with the studies done by Uzma Shabab, et al. [10] (10.23%) and Shrestha, et al. [4] (9.88%). 5.08% of women with IUCD had ectopic pregnancy which correlates with the studies done by Shradha Shetty K, et al. [7] (6.4%), Shrestha, et al. [4] (5%) and W.M. Fageeh [5] (5.8%). IUCD prevents intrauterine pregnancy but not tubal and ovarian pregnancy.

The risk of tubal pregnancy is more if a woman conceives with IUCD in situ.

In the present study group, 93.87% of the patients had h/o amenorrhea, 86.04% had history of pain abdomen and 5.14% had bleeding PV. This is correlating with the study done by Gupta R, et al. [6] in which amenorrhea was present in 90%, pain abdomen in 87.5% and bleeding PV in 67.5% of the patients.

Urine pregnancy test was positive in 93.2% of the cases which correlated with the study done by Rashmi A Gaddagi, et al. [3] (97.3%) and W.M. Fageeh [5] (96%). The availability of more sensitive (5 mIU/mL) urine pregnancy kits makes the test positive and in making an early diagnosis.

Most of cases being ruptured ectopic pregnancies, salpingectomy in 89.05% and salpingo-oophorectomy in 1.02% was done. Among 38 unruptured ectopic pregnancies 9 cases ended in laparotomy and 27 cases were successfully managed by single (17) or multiple (10) doses of methotrexate. Morbidity was blood transfusion (87.75%), wound complications 4.76% and ICU admissions were 5 cases. Mortality rate was nil.

CONCLUSION: The rise in the incidence of ectopic pregnancy is going in parallel with the rise in the incidence of risk factors like sexually transmitted infections, increased tubal sterilization and reversal, Assisted Reproductive Technology. The early diagnosis of an ectopic pregnancy is one of the greatest challenges for a physician. It requires a high index of suspicion and to diagnose an ectopic pregnancy, one must be ectopic minded. Early diagnosis and timely active interventions in the form of expectant and surgical management will effectively reduce the morbidity and mortality.

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