PELVIC INFLAMMATORY DISEASE (PID): A CROSS SECTIONAL PROSPECTIVE STUDY AT A TERTIARY CARE CENTRE

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ABSTRACT

Introduction : Pelvic inflammatory disease (PID) is an infection of the upper part of the female reproductive system namely the uterus, fallopian tubes, and ovaries, and inside of the pelvis. **Objective**: to find out the clinical profile of PID in a tertiary care centre. **Methods:** This was a cross sectional, descriptive study conducted at the Department of Obstetrics and Gynaecology, during period from January to December2016. Total 200 patients complaining of lower abdominal pain, vaginal discharge & having adnexal as well as cervical motion tenderness on bimanual examination between the age group of 18 -45 years were randomly selected for study. Parameters like age, parity, socioeconomic status, age of marriage, sexual behavior, Presenting complaints and use of contraceptive were recorded. **Results:** Most common age group was 20-24 years (29.5%). Maximum number of cases was seen in parity between 2 -5 (58%). PID was commonest amongst illiterate women (36%). Maximum number of cases was seen in women from lower socioeconomic class (74%). Out of 200 cases, 79% patients were married, 14 % were remarried. Presenting complaints were pain in abdomen (93.5%), per vaginal discharge (66%), fever (51%). Abdominal tenderness was seen in 95 % of cases. Palpable mass was present in 11 % of cases. Forniceal & cervical motion tenderness were the commonest Per Vaginal examination findings seen in 89% & 84% cases respectively. **Conclusion:** Incidence of PID was higher in age group between 20-29 years, multipara, women from lower socioeconomic class & illiterate women. Pain in lower abdomen, per vaginal discharge & fever were the commonest complaints. Most of the patients on examination had forniceal & cervical motion tenderness.

KEYWORDS: Clinical profile; Cross sectional & descriptive study; Multiparity; Pelvic Inflammatory Disease.

INTRODUCTION

Pelvic inflammatory disease (PID) is an infection of the upper part of the female reproductive system namely the uterus, fallopian tubes, and ovaries, and inside of the pelvis [1,2]. The incidence of acute PID has decreased in many countries, though its true prevalence is not well known because most of cases are subclinical [3,4]. According to previous studies, its incidence varies between 0.28% and 1.67% worldwide [5,6]. PID affects predominately in the reproductive age years with its highest prevalence being in the second and third decades [7].

The inflammation observed in PID results from infection, mostly bacterial [3]. The micro-organisms responsible can be Chlamydia trachomatis, Neisseria gonorrhea, Streptococcus sp, Enterococcus faecalis, Escherichia coli, Klebsiella, Staphylococcus sp [8-11].

It is estimated that about 10% of women infected by Chlamydia trachomatis subsequently develop PID [10]. More recently, genital tract mycoplasmas, especially Mycoplasma genitalium, have been implicated as a cause of acute PID [12, 13]. Most often, many microorganisms are simultaneously involved [11, 12]. Risk factors for PID are multiple sexual partners, single status, lower socioeconomic status, young age (30 years), intrauterine contraceptive device, endometrial biopsy, hysteroscopy, HSG (Hystero-Salpingography) [5,14]. Complications of acute PID include tubal infertility, ectopic pregnancy and chronic pelvic pain [3].

In India, women of reproductive age group are more reluctant to seek medical care because of lack of privacy, lack of female doctor at the health centers, the cost of treatment and their subordinate status as well as the culture of silence. The most serious sequelae arising in women due to RTI'S are reported to be Pelvic inflammatory disease (PID) [15]. This disabling disease can be prevented by better obstetric & delivery care, family planning care, safe way of pregnancy termination & health education [10]. This study was done to find out

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the clinical profile of PID in a tertiary care centre.

MATERIALS AND METHODS

Study design: Cross sectional descriptive study

Ethics approval: The study was approved by the institutional ethics committee and informed consent was obtained from the participants

Study place: The study was conducted at the Department of Obstetrics and Gynaecology in DVVPF's medical college & hospital, Ahmednagar, Maharashtra,

Study period: study was conducted during period from January to December2016.

Study population: Total 200 patients of reproductive age group suffering from PID were selected randomly.

Inclusion criteria: Patients complaining of lower abdominal pain, vaginal discharge & having adnexal as well as cervical motion tenderness on bimanual examination between the age group of 18 -45 years.

Exclusion criteria: Women of child bearing age with established other causes of lower abdominal pain, pregnant women, before menarche and postmenopausal women were excluded. **Methodology**: History & examination was conducted in details as per prescribed proforma. All the parameters like age, parity, socioeconomic status, age of marriage, sexual behavior, Presenting complaints and use of contraceptive were recorded.

Statistical analysis: Data were analyzed in tabular form & in percentage. Findings from this study were compared with similar other studies.

RESULTS

Table 1. Age wise distribution of cases

Age group(years)	Number of patients	Percentage
<20	4	2
20-24	59	29.5
25-29	53	26.5
30-34	39	19.5
35-40	31	15.5
>40	14	7
Total	200	100

Most common age group was 20-24 years (29.5%),followed by 25-29 years (26.5%).Least common age group was <20 years (2%).

Table 2. Parity wise distribution of cases

Parity	Number of patients	%
0	10	5
1	22	11
2-5	116	58
>5	52	26

Maximum number of cases was seen in parity between 2-5 (58%).Incidence was minimum in nullipara (5%).

Table 3. Distribution of cases according to education

Education	Number of patients	%
Illiterate	72	36
Primary	56	28
SSC	34	17
HSC	24	12
Graduate	14	7

Incidence of PID was commonest amongst illiterate women (36%), followed by women having education up to primary level (28%).

Table 4. Distribution of cases according to socioeconomic class

Socioeconomic class	Number of patients	Percentage
Lower class	148	74
Middle class	39	19.5
Higher class	13	6.5

Maximum number of cases was seen in women from lower socioeconomic class (74%).In higher socioeconomic class only 6.5% cases were seen.

Table 5. Distribution of cases according to marital status

Marital status	Number of patients	Percentage
Unmarried	2	1
Married	158	79
Remarried	28	14
Separated	5	2.5
Widow	7	3.5

Out of 200 cases, 79% patients were married, 14 % were remarried. Incidence was lowest in unmarried group (1%).

Table 6. Distribution of cases according to age at marriage

Age of marriage (years)	Number of patients	Percentage
Before 20	96	48
20-30	67	33.5
After 30	37	18.5

Most of the women in the study were married before the age of 20 years (48%), followed by between 20-30 years (33.5%)

Table 7. Contraception practice

Contraception used	Number of patients	Percentage
Barrier	12	6
OC pills	6	3
IUCD	52	26
Tubectomy	28	14
None	102	51
Total	200	200

51 % cases did not use any contraception. IUCD users were 26%.14 % underwent tubectomy.

Table 8. Presenting complaints

Complaint	Number of patients	Percentage
Pain in abdomen	187	93.5
Backache	114	57
PV discharge	132	66
Fever	102	51
Nausea & vomiting	42	21
Others	15	7.5

Presenting complaints were pain in abdomen (93.5%), per vaginal discharge (66%), fever (51%).

Table 9. Per Abdomen Examination findings

Per abdomen	Number of patients	Percentage
Tenderness	190	95
Palpable mass	22	11

Abdominal tenderness was seen in 95 % of cases. Palpable mass was present in 11 % of cases.

Table 10. Pelvic Examination findings

PV findings	Number of patients	Percentage
PV discharge	142	71
Cervical motion tenderness	168	84
Forniceal tenderness	178	89
Adnexal mass	39	19.5

Forniceal & cervical motion tenderness were the commonest Per Vaginal examination findings seen in 89%& 84% cases respectively. Other findings were per vaginal discharge (71%), adnexal mass (19.5%).

DISCUSSION

PID is one of the common clinical complaints in gynecologic practice. PID implies inflammation of the upper genital tract involving fallopian tube as well as ovaries because most of PID is due to ascending or blood borne infection, the lesion is often bilateral though one tube may be affected than the other.

In our study most common age group was 20-24 years (29.5%), followed by 25-29 years (26.5%). Least common age group was <20 years (2%).These findings are similar to study conducted by **Elie Nkwabong** et al [16] which also shows maximum age incidence in 20-24 years age group (27.2%), followed by 25-29 years (24.3%). PID affects predominately in the reproductive age years with its highest prevalence being in the second and third decades [7].

Maximum number of cases in this study was seen in parity between 2-5 (58%).Incidence was minimum in nullipara (5%).These findings are consistent with study by **S Ahmed et al [17]** who have documented maximum incidence of cases in parity between 2-5 (56%).

In this study incidence of PID was commonest amongst illiterate women (36%), followed by women having education up to primary level (28%). If we compare this study with study by **Elie Nkwabong** et al [16] where maximum incidence of PID in women having education below SSC (54.3%) followed by education below primary education (20%).

In our study maximum number of cases was seen in women from lower socioeconomic class (74%). In higher socioeconomic class only 6.5% cases were seen. These findings are comparable with that of **S Ahmed et al [17]**, where 60% & 36% cases were from low & middle class respectively & only 4 % cases belonged to higher class. This supports the fact that PID is common amongst women from lower socioeconomic class.

Out of 200 cases in our study, 79% patients were married, 14 % were remarried. Incidence was lowest in unmarried group (1%).These findings are somewhat comparable with study by **S Ahmed et al [17]**, where married patients contribute to 90% of cases ;but different from study by **Elie Nkwabong** et al [16] who found out incidence in married patients somewhat lower (41%). Marital status is often referred to as risk marker for PID because active sexual life has an impact on the occurrence of PID [18].

In our study 51 % cases did not use any contraception. IUCD users were 26%.14 % underwent tubectomy. These findings are comparable with study by **Patel Sangeeta etal [19]** who found out 19.33 % cases using IUCD as a contraceptive agent. During IUCD insertion, there is introduction of vaginal and cervical organisms into the endometrial cavity and accounts for most cases of IUCD related PID [17].

Presenting complaints in this study were pain in abdomen (93.5%), per vaginal discharge (66%), fever (51%).These findings are somewhat comparable with the study by **Elie Nkwabong** et al [16] ,where pain in abdomen, per vaginal discharge & fever seen in 75.7% ,73.27%& 70.85% cases respectively.

In present study abdominal tenderness was seen in 95 % of cases. Palpable mass was present in 11 % of cases. These findings are comparable with study by **S Ahmed et al [17]**, who have documented incidence of abdominal tenderness & palpable abdominal mass 100% & 16 % respectively.

In our study forniceal & cervical motion tenderness were the commonest Per Vaginal examination findings seen in 89% & 84% cases respectively. Other findings were per vaginal discharge (71%), adnexal mass (19.5%). These findings are comparable with study by **S Ahmed et al [17]**, who have documented incidence of forniceal & cervical motion tenderness & per vaginal discharge 100%, 100 % & 16 % respectively.

CONCLUSION

Present study shows that incidence of pelvic inflammatory disease is higher in age group between 20-29 years, multipara, women from lower socioeconomic class & illiterate women. Pain in lower abdomen, per vaginal discharge & fever are the commonest complaints. Most of the patients on examination had forniceal & cervical motion tenderness.

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