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Kanchan Rani
Associate Professor, Department of Obstetrics and Gynaecology, Teerthankar Mahaveer Medical College, Bagadpur, Moradabad, Uttar Pradesh, India

Rehana Nazam
Professor, Department of Obstetrics and Gynaecology, Teerthankar Mahaveer Medical College, Bagadpur, Moradabad, Uttar Pradesh, India

Priyanka Rathore
Junior Resident, Department of Obstetrics and Gynaecology, Teerthankar Mahaveer Medical College, Bagadpur, Moradabad, Uttar Pradesh, India

Corresponding Author:
Kanchan Rani
Associate Professor, Department of Obstetrics and Gynaecology, Teerthankar Mahaveer Medical College, Bagadpur, Moradabad, Uttar Pradesh, India

Clinical profile of patients with pelvic inflammatory disease: A cross sectional study at tertiary care centre

Kanchan Rani, Rehana Nazam and Priyanka Rathore

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Abstract
Introduction: Pelvic Inflammatory Disease infection and inflammation of upper female genital tract including endometritis, salpingitis, oopheritis, tubo-ovarian abscess and pelvic peritonitis. This study is to find out clinical profile of patients with pelvic inflammatory disease.
Material and Methods: It was a cross sectional study which was conducted in department of obstetrics and gynaecology for a period of 6 months from March to August 2019.A total of 150 patients in reproductive age group presenting with lower abdomen pain and vaginal discharge and having either cervical motion tenderness, uterine tenderness or adnexal tenderness on bimanual examination were selected randomly. All variables like age, parity, literacy, socioeconic status, contraceptive methods used and various presenting complaints were noted.
Result: Maximum number of patients were between 25 to 29 years of age (34%). Maximum patients of pelvic inflammatory disease were with parity 2 to 5 (64%).It was commonest in illiterate women (54.67%) and low socioeconomic status (88%).Commonest presenting symptom were discharge per vaginum (74.67%) followed by pain lower abdomen (84%). Cervical motion tenderness was 90.67%, uterine tenderness in 80.67%, adenexal mass in 4% only
Conclusion: PID was more common in age group 25 to 29years, multipara, ileterate women and in low socio economic status. Most common presentation were discharge per vaginum, pain lower abdomen and lower bachache. Maximum women prented with multiple complaints. On examination most patient had uterine tenderness, cervical motion tenderness adnexal tenderness.

Keywords: Contraceptive, IUCD, Pelvic inflammatory disease, socioeconomic status

Introduction
Pelvic inflammatory disease (PID) is infection and inflammation of upper female genital tract including endometritis, salpingitis, oopheritis, tubo-ovarian abscess and pelvic peritonitis [1]. Microrganism involved are mainly sexually transmitted like Clamydia trachomitis and Neisseria Gonorrhea [2, 3, 4, 5].

Pathogens from vaginal flora are also involved like streptococci, staphylococci, Escheria coli, hemophulus influenza and other anaerobes [2, 3, 4, 5]. Recently Mycoplasma genitalium has been identified as causative organism of acute PID [6, 7]. So, mostly it is polymicrobial infection. PID has been shown to associated with various risk factors like multiple sexual partners, having sex with partner who has sex with multiple sexual partner, young age low socio-economic status, Intrauterine contraceptive devices, unsafe abortions and various obstetrics and gynaecological proceedings like MTP, endometrial biopsy, hysterosalpingography, Hysteroscopy etc [2, 3, 4, 5, 8, 9, 10]. It is difficult to know the true prevalence of the disease because most of the cases are sub clinical [11, 12]. Its incidence varies between 0.28% to 1.67 % worldwide [8, 9]. Although laproscopy considered to be gold standard to diagnose pelvic inflammatory disease but it is not available neither justifiable in each case. Also laproscopy will not be able to detect endometritis and shuttle inflammation of the fallopian tube may be missed. So diagnosis of PID is usually done on clinical findings [13, 14].

Considering grave sequale of PID early diagnosis and treatment is a must. In India women having PID is espially prone to develop morbidity due to late pursuance of medical help. It may be due to lack of awareness and less considerable status of women's health in the society. PID and its disabling morbidity can be prevented by proper health education safe sex practices, family planning methods, safer delivery and termination of pregnancy [4]. So, we conducted the study socio economical and clinical profile of patients having PID.

Material and Methods

Study design: Cross sectional descriptive study
Study place: Department of obstetrics and Gynaecology Teerthankar Mahaveer Medical College, Moradabad,
Study period: March 2019- August 2019
Study population: 150 patients in reproductive age group having PID were selected randomly
Inclusion criteria: Patient presenting with lower abdominal pain with vaginal discharge having either cervical motion tenderness or uterine tendernessor adnexal tenderness on bimanual examination between 18- 45 years of age.
Exclusion criteria: Other established causes of lower abdominal pain, before menarche and post menopausal patients
After meeting inclusion and exclusion criteria history taken and examination were conducted per speculum and bimanual examination done or variables like age, parity, socioeconomic status, literacy, contraceptive practices and presenting complaints were noted.
Statistical analysis: Datas were recorded in excel sheet and analysed in tabular form and percentage.

Result

Most common group presenting with PID were between 25to 29 years of age (34%) followed by 22 to 24 years of age (24%). It was less common in age less than 20years (1.33%) and more than 40 years of age (3.33%) (Table 1).

Table 1: Agewise distribution of PID patients

Age	Number of Patients	Percentage
<20	2	1.33
20-24	36	24.00
25-29	51	34.00
30-34	32	21.33
35-40	24	16.00
>40	5	3.33
Total	150	100%

Maximum women with PID were having parity of 2 to 5(64%). It was less common in nullipara (4%) (Table 2)

Table 2: Parity wise Distribution of PID patients

Parity	Number of patients	Percentage
0	6	4.00
1	26	17.33
2-5	96	64.00
>5	22	14.67
Total	150	100

PID was commonest in illiterate women (54.67%) and less common in women who were graduate (1.33%) (Table 3)

Table 3: Distribution of patients according to literacy

Education	Number of patient	Percentage
Illiterate	82	54.67
Primary	45	30.00
SSC	16	10.67
HSC	5	3.33
Graduate	2	1.33
Total	150	100

PID was more common in women having low socioeconomic status (Table 4)

Table 4: Distribution of patients according to socioeconomic class

Socio-economic status	Number of patients	Percentage
Low	132	88
Middle	18	12
Total	150	100

Maximum number of women presenting with PID did not used contraceptive. (62%). 14% used barrier method but were irregular and 12% used IUCD (Table 5).

Table 5: Distribution of patients according to age at time of marriage

Age at time marriage(Years)	Number of patients	Percentage
<20	13	8.67
20-30	131	87.33
>30	6	4.00
Total	150	100

Most of the women presented with discharge per vaginum (74.67 %) followed by pain lower abdomen (84%) and bachache (40.67%) (Table 6).

Table 6: Distribution of patients according to use of contraceptive practices

Contraceptive Use	Number of patients	Percentage
Barrier	21	14
Oral Contraceptive pills(OCP)	6	4
Intra Uterine Contraceptive Device (IUCD)	18	12
Tubectomy	12	8
None	93	62
Total	150	100

97.33% women had discharge per vaginum on speculum examination. 90.67% had cervical motion tenderness and only 4% presented with adenexal mass. (Table 7).

Table 7: Distribution of patients according to Presenting Complaints

Presenting Complaints	Number of patients	Percentage
Pain lower Abdomen	126	84
Backache	61	40.67
Per vaginum discharge	112	74.67
Burning micturition	46	30.67
Itching per vaginum	36	24
Fever	26	17.33
Nausea/ Vomiting	5	3.33
Irregular menstruation	36	24
Infertility	21	14

Discussion

In our study most common age group presenting with PID were 25- 29 years (34%) followed by 20 -24 years of age (24%). It was less common in age group less than 20 years (1.33%) and more than 40 years (3.33%) Eli Nk Wabong *et al.* also showed maximum incidence in 20 -24 years of age (27.2%) followed by 25 -29 years of age (24.3%) [15]. Patient having parity of 2 to 5 showed maximum incidence (64%) and it was least seen in nullipara (4%). Peterson *et al.* also had similar findings [16].
With PID occurring mostly in multipara. But our findings were in contrast to the study done by westrom *et al.* which showed 74.4% cases in nulliparous women [17]. In our study PID was seen most commonly in illiterate women (54.67%) followed by

women with primary education (30%). Our findings were similar with Eli N K Wabong *et al.* showed maximum PID cases in women who were educated below SSC (54.3%) followed by women having education having below primary level (20%) [15]. Less education makes them less aware about prevention of disease.

PID was maximum seen in women of low socioeconomic status (88%) It was similar with findings of other studies. S Ahmed *et al.* showed PID cases were more common in low and middle class that is 60% and 30% respectively [18]. Although we cannot draw a conclusion from our study regarding socioeconomic status and PID because majority of patient attending Obstetrics and Gynaecology department of our institute belong to lower or middle socioeconomic status.

Our study showed maximum number of patients were not using any contraception (62%). 14% were using barrier methods but were irregular in contraceptive practices. 12% used IUCD. Patel Sangeeta *et al.* showed 19.33% used IUCD [19].

Pain lower abdomen was most common presenting complaints (84%) followed by discharge per vaginum (74.67%) and bachache (46.67%). These findings were similar to the study by Eli N K Wabong *et al.* which showed pain abdomen in 75.7% and vaginal discharge in 73.27% cases. [15] Fever in our study was less common presentation 17.33% which is in contrast to Eli N K Wabong *et al.* which showed fever as presenting complaints in 78.85% cases [15]. Maximum patients presented with multiple complains.

On pelvic examination discharge per vaginum was present in 97.33%, Cervical motion tenderness in 90.67%, uterine tenderness in 80.67% and adnexal tenderness in 84%. Adenaxal mass was present in 4% of cases only. our findings corresponds with findings of S Ahmed *et al.* which showed fornicial and cervical motion tenderness in 100% cases, discharge per vaginum without foul smell in 74% and foul smelling vaginal discharge in 16% cases [18].

Conclusion

Incidence of PID is increasing especially in developing countries due to lack of awareness and unsafe sexual practices. It is seen to be more in younger age group with morbidity like tubal factor infertility, ectopic pregnancy and chronic pelvic pain. Awareness about the disease safe sexual practices and early diagnosis and treatment are key to prevent its late debilitating sequel.

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