

Retrospective Analysis of Patient with Pelvic Inflammatory Diseases Visited in Hospital

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ABSTRACT

Background: Care for PID has shifted from the inpatient to the outpatient setting in an effort to contain costs and in response to preliminary efficacy and cost-effectiveness data from the Pelvic Inflammatory Disease Evaluation and Clinical Health (PEACH) trial, which demonstrated that hospitalization for mild – moderate disease did not improve longitudinal outcomes for affected women.

Aim of the study: To retrospectively analyze patients with pelvic inflammatory diseases visiting in hospital.

Materials and Methods: The study was conducted in a private hospital (obstetric and gynaecology) at Bhiwandi, Thane. For the study, we selected patients reporting to the department OPD and diagnosed for PID. A total of 40 patients agreed to participate in the study. A detailed medical history of the patient was taken by the reporting physicians with reference to the chief complaint. The patients were given a questionnaire comprising of questions regarding socio-economic status, number of sexual partners, history of STDs, smoking habit, alcohol consumption, obesity. The patient information was kept confidential.

Results: A total of 40 patients were selected for the study. 21 patients belonged to rural area and 19 patients belonged to urban area. 22 patients were married and 18 patients were

single. We observed that 12 patients were smokers, 9 patients were positive for alcohol consumption, 8 patients were obese, 12 patients had multiple sexual partners and history of STDs was present in 20 patients. This shows that there is a positive correlation of history of STD with PID.

Conclusion: The pelvic inflammatory disease is a significant public health issue with certain repercussion on women's health and wellbeing in the long run. There is a pressing need to create awareness among the women regarding the identification and early reporting of symptoms.

Keywords: Pelvic, Inflammatory, STD, PID.

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Article History:

Received: 04-01-2018, **Revised:** 29-01-2018, **Accepted:** 22-02-2018

Access this article online	
Website: www.ijmrp.com	Quick Response code 
DOI: 10.21276/ijmrp.2018.4.2.017	

INTRODUCTION

An estimated 770,000 cases of pelvic inflammatory disease (PID) are diagnosed annually. PID comprises infection and inflammation of the uterus, fallopian tubes, ovaries, and other adjacent tissue and has multiple infectious etiologies, many of which have been demonstrated to be sexually transmitted, including Chlamydia trachomatis.^{1,2} C. trachomatis has been isolated in approximately one-quarter of patients with a symptomatic PID diagnosis. Each episode of this upper reproductive tract infection, usually caused by a sexually transmitted infection (STI), increases the risk for multiple sequelae, including tubal infertility, ectopic pregnancy and chronic pelvic pain (CPP).³

⁴ Care for PID has shifted from the inpatient to the outpatient setting in an effort to contain costs and in response to preliminary efficacy and cost-effectiveness data from the Pelvic Inflammatory Disease Evaluation and Clinical Health (PEACH) trial, which

demonstrated that hospitalization for mild – moderate disease did not improve longitudinal outcomes for affected women.⁵ Risk factors associated with PID include young age at first intercourse, high frequency of intercourse, number of sexual partners, promiscuous partner. It is rare in postmenopausal women and in those who had tubal ligation. Women suffering from this infection are at higher risk of chronic pelvic pain, ectopic pregnancy, infertility and unexpected hospital visits.⁶ Hence, we planned the study to retrospectively analyze patients with pelvic inflammatory diseases visiting in hospital.

MATERIALS AND METHODS

The study was conducted in a private hospital (obstetrics and gynaecology) at Bhiwandi, Thane. For the study, we selected patients reporting to the department OPD and diagnosed for PID.

An informed written consent was obtained from the patients willing to participate in the study after procedure of the study was conveyed to them verbally. A total of 40 patients agreed to participate in the study. A detailed medical history of the patient was taken by the reporting physicians with reference to the chief complaint. The patients were given a questionnaire comprising of questions regarding socio-economic status, number of sexual partners, history of STDs, smoking habit, alcohol consumption,

obesity. The patient information was kept confidential. All the patients underwent thorough physical examination as well as pelvic examination. The findings of the data were tabulated and subject to further evaluation.

The statistical analysis of the data was done using SPSS version 20.0 for windows. The Student's t-test and Chi-square test were used to check the significance of the data. The p-value less than 0.05 was predetermined as statistically significant.

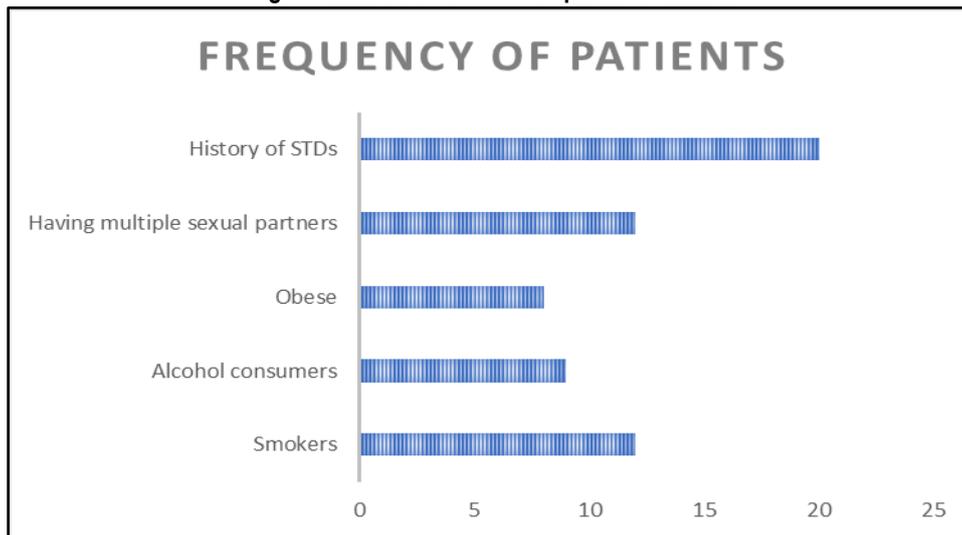
Table 1: Frequency of patients with various demographic variables

Parameters		Frequency of patients diagnosed with PID
Area of residence	Rural	21
	Urban	19
Religion	Hinduism	15
	Christian	3
	Muslim	21
	Others	1
Socioeconomic status	Rich	12
	Poor	09
	Middle class	19
Marital status	Married	22
	Single	18

Table 2: Association of PID with personal factors

Parameters	Frequency of patients	p-value
Smokers	12	0.22
Alcohol consumers	9	0.31
Obese	8	0.8
Having multiple sexual partners	12	0.75
History of STDs	20	0.12

Fig 1: Association of PID with personal factors



RESULTS

A total of 40 patients were selected for the study. Table 1 shows the frequency of patients with different demographic variables. 21 patients belonged to rural area and 19 patients belonged to urban area. 22 patients were married and 18 patients were single.

Table 2 shows the association of PID with personal factors. We observed that 12 patients were smokers, 9 patients were positive for alcohol consumption, 8 patients were obese, 12 patients had multiple sexual partners and history of STDs was present in 20 patients. This shows that there is a positive correlation of history of STD with PID. On comparing the results, we found that the results are statistically non-significant. [Fig 1]

DISCUSSION

In the present study we retrospectively analyze patients with pelvic inflammatory diseases visiting in hospital. We observed that highest frequency was seen with history of sexually transmitted disease in the patients. But the results were statistically non-significant. The results were compared with previous studies and results were consistent with previous studies. Khan S et al determined the burden of PID, associated micro-organisms, pathophysiology and risk factors among post-menopausal women of the community. A cross-sectional study was conducted among 530 post-menopausal women in the registered field practice areas of the JN Medical College and Hospital, Aligarh, Uttar Pradesh,

India. Clinical and laboratory examinations were done to confirm the diagnosis of PID. About 11.55% of the study subjects were diagnosed with PID (12.5% in rural areas and 10.6% in urban areas). Bacterial vaginosis followed by *Trichomonas vaginalis* were most common. Among the important risk factors, significant association was found with occupation of the women, increasing parity, multiple sexual contacts, and associated pelvic organ prolapse. Association with smoking, chronic illnesses, diabetes mellitus and hypertension, and associated urinary tract infection were not found to be significant. The study showed the hidden burden of the disease in the community and the associated risk factors, which can be prevented by life style and cultural changes if incorporated earlier in the lives. Adler MW et al identified the long-term sequelae and morbidity associated with acute pelvic inflammatory disease (PID) patients with acute PID and matched controls were interviewed at five-monthly intervals for about 21 months after entry into the study. In some instances morbidity among the patients was increased, particularly at five months after admission to hospital. Significantly more patients than controls had visited hospital as outpatients, been admitted to hospital and undergone abdominal operations, and had to alter their normal daily routine and take time off work. The cumulative rates for all of these, except for time off work, were significantly higher in the patients than in the controls. Differences between the two groups both at early and later interviews and cumulatively were evident in the incidence of abdominal pain (other than menstrual pain), change in menstruation (longer and more painful), and pain during sexual intercourse, which persisted in one-fifth of patients after the initial acute episode.^{7,8}

Bernstien R conducted a study on one hundred eighty-two women were diagnosed by laparoscopy as having an initial episode of acute pelvic inflammatory disease (PID). The classification of PID was based on a modification of Westrom's criteria. Antibiotic treatment followed recommended protocols established by the Centers for Disease Control (CDC). Each year, the woman is contacted to complete a questionnaire detailing her reproductive history, presence of pelvic pain, and menstrual history, as well as other miscellaneous gynecologic history. The results are categorized according to the severity of the acute PID, as well as the time elapsed since the infection. A psychological investigation of post-PID pain was performed, and yielded accurate prediction of whether or not pain had been reported by a patient during the acute phase of the disease. Results indicate an increased incidence of involuntary sterility as the disease progresses in severity. The occurrence of ectopic pregnancy is increased for all stages of PID, but most particularly, following tubo-ovarian abscess. The long-term consequences of a single episode of acute PID are often severe. Huengsberg M et al examined how well PID is managed in the primary care setting and highlight areas for improvement. The study was performed by sending postal questionnaires to 180 randomly selected general practitioners in Birmingham. Given the example of a woman presenting clinically with PID, the doctors were asked questions on diagnosis and treatment. To assess factors that may influence the answers, they were also asked about their sex, year of qualification, and postgraduate training. 139 questionnaires (77%) were returned. 91.4% of the respondents feel confident in managing patients with PID, and only 9.3% would usually refer these patients on. However, 54.7% do not perform an

endocervical swab for *C trachomatis*, 37.4% do not include anti-chlamydial antibiotics in their treatment regimen, and 24.5% do not advise sexual partners to be screened. They concluded that the management of a patient presenting with PID should include investigation for *C trachomatis* and treatment with an appropriate antibiotic.^{9,10}

CONCLUSION

Within the limitations of the study we conclude that pelvic inflammatory disease is a significant public health issue with certain repercussion on women's health and wellbeing in the long run. There is a pressing need to create awareness among the women regarding the identification and early reporting of symptoms.

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Source of Support: Nil.

Conflict of Interest: None Declared.

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Cite this article as: Jayanarayan Senapati, Rajashree Senapati, Anjani Senapati. Retrospective Analysis of Patient with Pelvic Inflammatory Diseases Visited in Hospital. *Int J Med Res Prof*. 2018 Mar; 4(2):83-85. DOI:10.21276/ijmrp.2018.4.2.017