



Research Article

A STUDY OF CLINICAL SYMPTOMS IN PATIENTS OF PELVIC INFLAMMATORY DISEASES

Uzma Eram¹ and Najam Khalique²

¹Department of Community Medicine, JN Medical College, AMU, Aligarh

²Department of Community Medicine, J.N.M.C.H, AMU, Aligarh

ARTICLE INFO

Article History:

Received 14th August, 2022

Received in revised form 25th August, 2022

Accepted 17th September, 2022

Published online 28th September, 2022

Keywords:

PID, symptoms, signs, abortion

ABSTRACT

Lower abdominal pain plus two or more symptoms and signs” or “lower abdominal pain, adnexal tenderness, and cervical motion tenderness” are widely recommended diagnostic criteria for PID, but are not supported by the evidence base. Subclinical PID is defined as the presence of endometritis in the absence of clinical signs and symptoms of PID. The aim of this study was to find the clinical symptoms in patients of PID. The present cross-sectional study was conducted in J.N. Medical College and Hospital (J.N.M.C.H.), Aligarh Muslim University, Aligarh. The study was carried out for a period of one year, from 1st August 2001 to 31st July 2002. The present study was carried out among ever married females in the reproductive age group of 15 to 49 years. Women, who gave positive history of PID, were asked to give their consent for the study. Their refusal was taken as exclusion criteria. Females with PID who were menstruating or who had taken antibiotic within the previous month were also excluded from the study. Lower abdominal pain, low backache and vaginal discharge was present in all the study population. Dyspareunia and menstrual irregularities were reported by less than 50% of study population. On per speculum examination, discharge was seen coming through os of cervix in 98.5% of cases, 52.5% cases showed cervical erosion, 41.1% of cases showed hypertrophy. On per vaginum examination, tender for nices and adnexa were present in 85.4% of cases. The abortion rate of more than 3 was found to be significantly higher in group III as compared to group I ($Z=2, p<0.05$). Safe delivery practice by skilled personal at the community level is strongly recommended to prevent PID. Teenagers and adolescents should be asked to delay sexual activity until 16 or older. As soon as PID is diagnosed it should be treated promptly after proper checkup and investigations.

Copyright©2022 Uzma Eram and Najam Khalique. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Pelvic inflammatory disease diagnosis is based on symptoms of pelvic or lower abdominal pain and signs of tenderness of either the cervix, adnexa, or uterus on exam^[1]. Over the past 2 decades the overall incidence of clinically diagnosed acute PID has decreased^[2]. Subclinical PID is defined as the presence of endometritis in the absence of clinical signs and symptoms of PID^[3]. In the United Kingdom, diagnosis in primary care, sexually transmitted disease, and obstetrics and gynaecology (O&G) clinics is focused on syndromic diagnosis. Recommended diagnostic criteria are based on the definition proposed by Hager which, in turn, is based on a combination of empirical data and expert opinion^[4]. The problem with the definition is that, although signs and symptoms may be diagnostic markers, none is pathognomonic. Lower abdominal pain plus two or more symptoms and signs” or “lower abdominal pain, adnexal tenderness, and cervical motion tenderness” are widely recommended diagnostic criteria for PID, but are not supported by the evidence base^[5,6].

National Guidelines for PID from the US Center of Disease Control and Prevention (CDC 2002 Guidelines) gradually modified the criteria for clinical diagnosis in 1998 and 2002 in order to cover milder forms of PID^[7]. Dysuria is not mentioned as a diagnostic criterion of PID in the CDC 2002 Guidelines. However, it is mentioned as a PID criteria in the CDC Pelvic Inflammatory Disease-CDC Fact Sheet for the public 2004^[8]. According to the CDC 2015 Sexually Transmitted Diseases Treatment Guidelines, any young sexually active woman or woman at risk for STIs with unexplained lower abdominal or pelvic pain and at least one of the following clinical criteria noted on pelvic examination should receive presumptive treatment for PID: cervical motion tenderness, uterine tenderness, and adnexal tenderness(14).

The aim of this study was to find the clinical symptoms in patients of PID.

MATERIAL AND METHODS

The present cross-sectional study was conducted in J.N. Medical College and Hospital (J.N.M.C.H.), Aligarh Muslim

*Corresponding author: Uzma Eram

Department of Community Medicine, JN Medical College, AMU, Aligarh

University, Aligarh. The patients were selected from the Gynaecological OPDs of the Department of Obstetrics and Gynaecology, Rural and Urban Health Training Centres (R.H.T.C & U.H.T.C) of the Department of Community Medicine. The females selected for the study from the Gynaecology OPD of JNMCH were labelled as group I while those selected from UHTC and RHTC were labelled as group II and group III respectively. Permission for doing the study was taken by the Board of Studies in the Department of Community Medicine, Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh. The study was carried out for a period of one year, from 1st August 2001 to 31st July 2002. The present study was carried out among ever married females in the reproductive age group of 15 to 49 years. Women, who gave positive history of PID, were asked to give their consent for the study. Their refusal was taken as exclusion criteria. Females with PID who were menstruating or who had taken antibiotic within the previous month were also excluded from the study.

A total of 350 ever married females were selected from the Gynaecology OPD of J.N. Medical College Hospital (n=170), Urban Health Training Centre (n=100) and Rural Health Training Centre (n=80).

A detailed clinical history and clinical examination were recorded on a pre formed and pre tested proforma.

RESULTS

Table 1 Distribution of the study population according to clinical symptoms (n=350)

Complaints	No	%
Lower abdominal pain	350	100.0
Vaginal discharge	350	100.0
Low backache	350	100.0
Genital itch	32	9.1
Menstrual irregularity	147	42.0
Dyspareunia	159	45.4
Infertility	60	17.1
Any urinary symptom	97	27.7
Any abdominal lump	2	0.5
Fever	1	0.3

A suspected case showed more than 1 aspect of complaints

Table 2 Distribution of the study population according to clinical symptoms (n=350)

Examination	No	%
PA Lump	0	0.0
Tenderness	2	0.6
Discharge coming through os of cervix	345	98.5
PS Cervical erosion	184	52.5
Cervical hypertrophy	144	41.1
Cervical tear	0	0.0
PV Cervical motion tenderness/fornices tender and adnexal tenderness	299	85.4

Table 3 Distribution of the study population according to abortions (n=350)

Gynae OPDs	Abortions			Total
	A ₀	A ₁₋₃	> / = A ₄	
Group I	117(68.8)	47(27.6)	6(3.5)	170(48.6)
Group II	68(68.0)	27(27.0)	5(5.0)	100(28.6)
Group III	52(65.0)	22(27.5)	6(7.5)	80(22.8)
Total	237(67.7)	96(27.4)	17(4.9)	350(100.0)

Z=2, p<0.05 (Significant)

DISCUSSION

As shown in **Table 1**, lower abdominal pain, low backache and vaginal discharge was present in all the study population. Dyspareunia and menstrual irregularities were reported by 159 patients (45.4%) and 147 patients (42.0%) respectively. Urinary symptoms were complained by 97 patients (27.7%). Infertility was reported by 60 patients (17.1%). Fever was presented by only 1 patient (0.3%). And nausea and vomiting and symptoms of proctitis were not complained by any of the patients. Abdominal lump was presented by 2 patients (0.57%) and genital itch by 32 patients (9.14%).

According to, a study^[9] it was reported that out of 165 patients, pelvic pain was found in 87.87% of patients, backache was found in 41.21%, leucorrhoea in 55.15%, infertility in 45.45%, menorrhagia in 31.51% and dyspareunia in 19.39%. Westrom^[10] found that 68.0% had dyspareunia and 63.0% were infertile.

Shah and Nagpal^[11] found abdominal pain to be the commonest presenting complaint in PID, occurring in 48.5% of cases. Associated infertility was present in 25.3% of cases. 6.87% cases had low grade fever, 31.1% of cases presented with foul smelling discharge and 6.25% of cases with dyspareunia. Patwardhan *et al*^[12] who in a study of 61 cases of PID found abdominal pain to be the commonest symptom occurring in 65.52% of cases. Low grade fever was present in 13.79%, foul smelling discharge in 10.34% and 6.9% suffered from dyspareunia.

Abdominal pain was reported by 98%, abnormal vaginal discharge by 45%, while feelings of sickness, dysuria, fever and/or chills, lower back pain, and abnormal bleedings were each reported by 24–30% of the patients. Pain at intercourse was reported by 5%^[13].

As shown in **Table 2**, lump was absent in all cases. Tenderness in the lower abdomen was present in 0.6% of cases. On per speculum examination, discharge was seen coming through of cervix in 98.5% of cases, 52.5% cases showed cervical erosion, 41.1% of cases showed hypertrophy. On per vaginum examination, tender fornices and adnexa were present in 85.4% of cases. A study^[15] reported adnexal tenderness to be the most common finding. The classical finding of pelvic pain, abnormal vaginal discharge and tender adnexa was seen in only 20.0% of the documented cases of acute salpingitis.

Adnexal tenderness was also reported in 40.6% of cases in another study^[16]. Another study^[17] reported adnexal tenderness in 18.75% cases of PID, cervical hypertrophy in 54.5% cases and cervical erosion in 70.0% of cases.

As shown in table 3, 237 out of 350 females gave no history of abortions. Out of those 113 giving history, 96 had abortions either once, twice or thrice. The 17 females had 4 or more abortions. The abortion rate of more than 3 was found to be significantly higher in group III as compared to group I (Z=2, p<0.05) This may be due to unawareness among females of rural areas regarding hygienic conditions and health which may lead to abortions. Kocher^[18] showed the highest incidence of pelvic infection occurred following abortion. It is estimated that 36 to 53 million induced abortion performed through the word of which 21 million are unsafe^[19]. The natural barrier to pelvic infection is the cervix where downward flows of the mucous and ciliary action are reinforced by production of lysozyme. With the help of

cervical secreted IgA, the lysozyme hydrolyses peptidoglycan links of microorganism allow osmotic destruction^[20]. This cervical protective barrier is compromised after abortion, instrumentation like D & C, IUCD insertion, MR and hysterosalpingography or as a result of sexual promiscuity^[21].

CONCLUSION

Regular screening for sexually transmitted infections should be done to prevent PID. Faithfulness to one's partner can help to prevent PID. Using condoms every time one should have sex can prevent PID. Home delivery is common to most of the patients conducted by untrained birth attendants, leading to PID. Safe delivery practice by skilled personnel at the community level is strongly recommended to prevent PID. Teenagers and adolescents should be asked to delay sexual activity until 16 or older. As soon as PID is diagnosed it should be treated promptly after proper checkup and investigations. The patients should also be referred to STI Clinic for proper counseling. Early diagnosis and treatment of PID will lead to decrease in morbidity in females which hampers their day-to-day activities.

References

1. Workowski KA, Bolan GA; Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, 2015. *MMWR Morb Mortal Wkly Rep* 2015; 64:1-137.
2. McKee DL, Hu Z, Stahlman S. Incidence and sequelae of acute pelvic inflammatory disease among active component females, U.S. Armed Forces, 1996-2016. *MMWR Morb Mortal Wkly Rep* 2018; 25:2-8.
3. Wiesenfeld HC, Hillier SL, Krohn MA, et al. Lower genital tract infection and endometritis: insight into subclinical pelvic inflammatory disease. *Obstet Gynecol* 2002; 100:456-63
4. (Hager W, Eschenbach D, Spence M, et al. Criteria for diagnosis and grading of salpingitis. *Obstet Gynecol* 1983;61:113-4)
5. Clinical Effectiveness Group. UK national guidelines on sexually transmitted infections and closely related conditions. *Sex Transm Infect* 1999; 75:S1-88.
6. Templeton A. The prevention of pelvic infection. London: RCOG Press, 1996.)
7. CDC-complete: Pelvic inflammatory disease. Sexually transmitted diseases treatment guidelines 2002. http://www.guideline.gov/summary/summary.aspx?ss=15&doc_id=3238&string=2002, Centers for Disease Control and Prevention. Pelvic inflammatory disease. Sexually transmitted diseases treatment guidelines. *MMWR Recomm Rep* 2002 May 10; 51(RR-6):48-52.
8. CDC-public STD: STD Prevention/facts. Pelvic Inflammatory Disease. <http://www.cdc.gov/std/PID/STDFact-PID.htm> 2004.
9. Gulati, N.; Kapoor, U: Chronic pelvic inflammatory disease. *J. Obstet. Gynaec. India* (1979), 29: 1212.
10. Westrom L: Effect of acute pelvic inflammatory disease on fertility. *Am. J. Obstet. Gynecol.* (1975), 121:707
11. Shah HN, Patel S, Nagpal S: Pelvic Inflammation. *J. Obstet. Gynaec. India* (1978), 28:429.
12. Patwardhan MV, Damania KR, Desai SV, Hansotia MD, Walvekar VR: Laparoscopically guided management of PID. *J. Obstet. Gynaec. India* (1988), 38-467.
13. Jan Eggert, Kristina Sundquist, Caroline van Vuuren, Aino Fianu Jonasson: The clinical diagnosis of pelvic inflammatory disease - reuse of electronic medical record data from 189 patients visiting a Swedish university hospital emergency department *BMC Women's Health* 2006, 6:16
14. CDC. Pelvic Inflammatory Disease (PID). Atlanta, GA: Department of Health and Human Services; 2015
15. Jacobson L, Westrom L: Objectivised diagnostic of acute pelvic inflammatory disease. Diagnostic and prognostic value of routine laparoscopy. *Am. J. Obstet. Gynecol.* (1969), 105:1088.
16. Singh M: Role of USG and laparoscopy as a diagnostic aid in the management of PID. Thesis MD. (Obstet and Gynaec) JNMCH, AMU, Aligarh.
17. TEWARI, K. *et al*; Ch. Trachoma is as a causative organism in genital infections. *J. Obstetric. Gynaec. India.* (2001); 51(1); 81-5.
18. Kocher, M. (1980) Review of Pelvic Inflammatory Disease at Kusturba Hospital Delhi. International Symposium of PID Centre for Disease Control, Atlanta, 1-3 April 1980.
19. Sultana, S. (1996) Aetiological Aspect of Chronic PID. A Reported of 349 Cases DMCH. Dissertation, BCPS, Bangladesh.
20. Mitchell, C. and Prabhu, M. (2013) Pelvic Inflammatory Disease: Current Concepts in Pathogenesis, Diagnosis and Treatment. *Infectious Disease Clinics of North America*, 27, 793-809. <https://doi.org/10.1016/j.idc.2013.08.004>
21. Brunham, R.C., Gottlieb, S.L. and Paavonen, J. (2015) Pelvic Inflammatory Disease. *New England Journal of Medicine*, 372, 2039-2048. <https://doi.org/10.1056/N EJMra1411426>

How to cite this article:

Uzma Eram and Najam Khaliq (2022) 'A study of clinical symptoms in patients of pelvic Inflammatory diseases', *International Journal of Current Advanced Research*, 11(09), pp.1530-1532. DOI: <http://dx.doi.org/10.24327/Ijcar.2022.1532.0340>
