

Clinical Findings of Pelvic Inflammatory Diseases among women in Reproductive Age

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Abstract

Background: Pelvic Inflammatory disease is a very common gynaecological condition among the women in reproductive age group. **Objectives:** The purpose of the present study was to find out the clinical findings of Pelvic inflammatory diseases among the women during reproductive age group. **Methodology:** This cross-sectional study was carried out in the Department of Obstetrics and Gynaecology at Mymensingh Medical College Hospital, Mymensingh, Bangladesh from January 2008 to June 2009 for a period of one (01) and a half year. Women who were presented with pelvic inflammatory disease (PID) attended at the OPD of gynecology Department at Mymensingh Medical College Hospital, Mymensingh, Bangladesh were selected as study population. Detailed clinical history of each patient was taken and thorough physical examination was performed. **Result:** A total number of 300 cases were recruited. The mean age with SD was 30.3±9.57 years. Majority of the patients had tenderness in the lower abdomen which was 96(64.0%) cases. However, 152(50.7%) patients had vaginal discharge and 34(11.3%) patients had uterovaginal prolapse. However, cervical tear was present in 96(32.0%) cases and chronic cervicitis was present in 138(46.0%) cases. **Conclusion:** In conclusion most common clinical feature is lower abdominal tenderness followed by vaginal discharge. [*Journal of National Institute of Neurosciences Bangladesh, January 2021;7(1): 52-55*]

Keywords: : Clinical Findings; Pelvic Inflammatory Diseases; Reproductive Age

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Introduction

Pelvic Inflammatory Disease (PID) is an ascending infection in which pathogenic microorganisms ascend from the lower genital tract to the upper genital tract¹. Endometritis is an early manifestation of PID and most but not all women with PID have plasma cell endometritis². Therefore, salpingitis develops, which can lead to pyosalpinx or tubo-ovarian abscess formation. Perihepatitis is associated with PID in 10-20% of cases³. It is a poly-microbial disease. Variety of organisms cause pelvic sepsis with superadded secondary infection and

that's why the primary pathogen remains unidentified. Although gonorrhoea has long been considered the major cause of pelvic inflammatory disease, however, the studies have found a rising proportion of non-gonococcus pelvic inflammatory disease⁴. By improved culture technique, workers have isolated Chlamydia trachomatis, anaerobic bacteria, enterobacteriae and Mycoplasma hominis as bacterial pathogens of pelvic infection, but the relative importance of these as primary or secondary pathogen is uncertain⁵. Anaerobic organisms are important as a secondary

invader than a primary cause of pelvic inflammatory disease, but the possibility that they may initiate the infection is not excluded⁶. The ascent of micro-organisms from the lower genital tract to the upper genital tract is the cause of pelvic inflammatory disease. One theory suggests that pelvic inflammatory disease usually starts as a cervical infection and is followed by production of metabolic waste products that alter the cervico-vaginal micro-environment⁷. This result in overgrowth of facultative anaerobic flora, which then ascend, with or without the original cervical pathogen, into the endometrium, fallopian tube and peritoneal cavity⁸. The purpose of the present study was to find out the clinical findings of pelvic inflammatory diseases among the women during reproductive age group.

Methodology

This study was designed as descriptive cross-sectional study. This study was carried out in the Department of Obstetrics and Gynaecology at Mymensingh Medical College Hospital, Mymensingh, Bangladesh from January 2008 to June 2009 for a period of one (01) and a half year. Women at any age who were suffering from pelvic inflammatory disease (PID) attended at the OPD of gynecology Department at Mymensingh Medical College Hospital, Mymensingh, Bangladesh were selected as study population. Clinically the patients were diagnosed with the presence of at least three of the symptoms like chronic pelvic pain or backache, deep dyspareunia, congestive dysmenorrhea, menstrual irregularities as well as the signs like lower abdominal tenderness, cervical motion tenderness and adnexal tenderness with or without thickening of fornices or mass. Detailed clinical history of each patient was taken and thorough physical examination was performed. Epidemiological aspects and clinical presentation have been mainly highlighted in this study. Relevant data from each patient were recorded in a questionnaire. Data were analyzed by SPSS version 21.0 software package. All data were recorded systematically in a preformed data collection sheet. The quantitative data were expressed as frequency and percentage and the quantitative data were expressed as mean with standard deviation.

Results

A total number of 300 cases were recruited after fulfilling the inclusion and exclusion criteria. Among 300 cases of pelvic inflammatory disease, majority (54.0%) belonged to the age group of 26 to 35 years followed by 18 to 25 years and more than 35 years age

group which were 100(33.3%) cases and 38(12.7%) cases respectively. The mean age with SD was 30.3±9.57 with the range of minimum 18 years and maximum 49 years (Table 1).

Table 1: Age Distribution of the Patients (n= 300)

| Age Group | Frequency | Percent |
|--------------------|----------------------|--------------|
| 18 to 25 Years | 100 | 33.3 |
| 26 to 35 Years | 162 | 54.0 |
| More than 35 Years | 38 | 12.7 |
| Total | 300 | 100.0 |
| Mean±SD (Range) | 30.3±9.57 (18 to 49) | |

Majority of the patients had tenderness in the lower abdomen which was 96(64.0%) cases. However. Lower abdominal mass was found in only 6(4.0%) cases of study population. The rest of 48(32.0%) cases had no abnormalities during per abdominal examination (Table 2).

Table 2: Per abdominal Examination Findings (n= 300)

| Findings in Lower Abdomen | Frequency | Percent |
|---------------------------|------------|--------------|
| Tenderness | 96 | 64.0 |
| Mass | 6 | 4.0 |
| No Abnormalities | 48 | 32.0 |
| Total | 150 | 100.0 |

In this study 152(50.7%) patients had vaginal discharge and 34(11.3%) patients had uterovaginal prolapse either

Table 3: Findings of Per Vaginal Examination among Study Population (n= 300)

| Variables | Frequency | Percent |
|----------------------------|-----------|---------|
| Vaginal Discharge | 152 | 50.7 |
| Uterovaginal Prolapse | 34 | 11.3 |
| Cervical tear | 96 | 32.0 |
| Chronic cervicitis | 138 | 46.0 |
| Cervical motion tenderness | 212 | 70.7 |
| Position of Uterus | | |
| • Anteverted | 190 | 63.3 |
| • Retroverted | 110 | 36.7 |
| Mobility of Uterus | | |
| • Mobile | 140 | 46.7 |
| • Restricted | 96 | 32.0 |
| • Fixed | 66 | 22.0 |
| Tenderness of fornices | 290 | 96.7 |
| Thickening of fornices | 206 | 68.7 |
| Tubeoovarian Mass | 16 | 5.3 |

Discussion

Clinical features of pelvic inflammatory disease may vary in developed countries⁸. It is more common among women with multiple sexual partners and women who report a history of STD compared with those with no STD history. The most important presenting feature is chronic pelvic pain of varying magnitude. The pain is dull in nature and continuously present over the both lower abdominal quadrants⁹. The pain aggravates prior to and during menstruation due to congestion. Pain is also increased with movement, coitus and micturition. There may be a sensation of pelvic pressure radiating down one or both legs; however, it is deep seated and occur due to the pelvic cellulites, especially when there is involvement of uterosacral ligament¹⁰.

The detailed and methodical study of 300 cases in this series shows highest (54.3%) incidence of this disease being in the age group of 26 to 35 years. Khan et al¹¹ have also showed that women with PID are usually under the age of 25 years. Simms et al¹² showed that 87.0% patients belong to the age group 20 to 35 years. There is similarity between this last study which was conducted in India, with the present study. Laila¹³ also showed that 55.21% of her patients were in the age group of 26 to 35 years. PID occurs more in younger age group in western countries where the disease is mainly STD related, but in developing countries, it is mostly non-STD related and occurs in later age group¹¹. Chronic pelvic inflammatory disease is never seen in prepubertal women and very rarely after the menopause. The most frequent age of involvement is between 15 and 25 years. This peak age reflect the sexual activities of this group of women. Patients are mostly multiparous. Most of them are having no antenatal checkup and have a home delivery which is conducted by relatives or dais⁹. There may be pelvic infection following child birth; however, many of the patients have a previous history of spontaneous or induced abortion or MR by unskilled person¹⁴.

Younger age is marked by biological characteristics conducive to the development of PID, such as a lower prevalence of protective chlamydial antibody, larger zone of cervical ecotypy and greater permeability of cervical mucosa¹⁵. The correlation between early coital indulgence and promiscuous sexual relationship might explain the very high saplingitis incidence in sexually active teenage girls. However, STD is less important for development of PID in the somewhat older women. In this age group of patients and also in women who have had two or more episodes of PID, anaerobic bacteria is thought to be the aetiological agent. The reason behind

this may be the post PID fallopian tubes are more vulnerable to infections by anaerobes¹³. Anatomic changes induced by pregnancy and delivery contribute to an easier access to the vagina for bowel flora; furthermore, this may lead to an increased occurrence of a type of non-venereal PID in women of comparatively higher age¹⁶.

Major symptoms for which the patients of this series reported to the obstetric and gynaecological outpatient department, Dhaka Medical College Hospital, in order of frequency, are lower abdominal pain (96.0%), backache (78.6%), dyspareunia (76.6%), congestive dysmenorrhoea (64%), vaginal discharge (60.0%) and sterility (6.7%), they also complained of menstrual abnormalities in the form of menorrhagia (20%), polymenorrhoea (6.7%), polymenorrhagia (2.7%), dysmenorrhoea (72.7%). Laila¹³ has shown that 95.31% of her patients had chronic lower abdominal pain. Sultana¹⁶ showed that all her patients had lower abdominal pain. In another study¹⁷ it has been reported that the most frequent clinical symptoms are some form of menstrual disturbances, 48.0% women complained of lower abdominal pain, 31.1% women experienced vaginal discharge.

The vaginal discharge is almost a constant manifestation. The discharge is mucoid or mucopurulent in nature and it is related to the congestion and associated cervical pathology¹⁸. Congestive dysmenorrhoea occurs due to pelvic congestion associated with premenstrual vascular engorgement. Backache is due to chronic cellulitis in uterine ligaments and becomes exaggerated during menstruation. There may be menorrhagia due to congestion and at times epimenorrhagia due to ovarian involvement. Patient may complain of infertility which is generally secondary in type. The factors causing infertility are cornual block, loss of cilia, loss of peristalsis due to thickening of tubal wall, closure of the abdominal ostium and distortion of the tube due to peritubal adhesion¹⁹. Patient may complain of deterioration of general health due to presence of a septic foci.

The past or presence of intrauterine contraceptive device is corroborative. An increasing number of women with PID will not have classical features. Chlamydia as well as gonococci will be found in asymptomatic women. There may be low grade temperature with tachycardia. There may be tenderness in the lower abdomen both iliac fossa, hypogastrium; however, irregular tender pelvic mass may be felt. In others, no palpable abnormality is detected except

tenderness¹³.

In this study a good number of cases had cervical tear. This indicates the spread of infection to the upper genital tract from the lower genital tract. A large number of patients showed features of chronic cervicitis. Majority of the patients showed evidence of pelvic cellulitis on bimanual examination. Adnexal mass was palpated in 6 patients. Following an acute pelvic infection, there was healing by fibrosis. This results in kinking of tubes which get adherent to the ovaries, uterus, intestine, omentum and pelvic peritoneum. This leads to the formation of tuboovarian mass. During per vaginal examination, there may be variable degrees of perineal and cervical tear. The cervix may show features of chronic cervicitis. In bimanual examination, the uterus may be bulky with restricted mobility or may be fixed retroversion. The cervix may descend down to some extent. The tear and descend helps in ascending infection¹⁷. Cervix may be congested and patulous. Pain will be present on moving the cervix during pelvic examination. Fornices reveal tenderness and thickening or even a mass on one or both sides. In long-standing cases, there may be tuboovarian mass extending to involve the pouch of Douglas. Rectal examination corroborates the findings of vaginal examination and should not be omitted especially when the vaginal examination is painful¹³.

Conclusion

In conclusion most of the patients are presented with tenderness in the lower abdomen. However. Lower abdominal mass is also found in majority of the study population. In addition vaginal discharge is also reported in a significant number of women. A large number of patients are presented with uterovaginal prolapse either in the form of cystocele, rectocele or uterine prolapse. However, cervical tear is also reported. Furthermore, the features of chronic cervicitis is also reported. During bimanual examination, cervical motion tenderness is also found. Fornices are found tender and thickened in a significant number of women presented with pelvic inflammatory diseases.

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