Assessment of Degree of Chronic Pelvic Pain and Adhesion: A Hospital-Based Study in Bihar Region

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Abstract

Aim: To evaluate degree of chronic pelvic pain and degree of adhesion.

Materials and Methods: The present clinico-observational study was conducted in the Department of Obstetrics and Gynecology, NSMCH, Amhara, Bihta,Patna, Bihar India among 40 women diagnosed with endometriosis. Pain intensity was assessed by visual analogue scale (VAS) and categorized as mild, moderate or severe accordingly. This was followed by laparoscopy/ laparotomy and staging of endometriosis which was done as per the American Society for Reproductive Medicine (ASRM) classification system. Corrective procedures were done simultaneously.

Results: Mean age of study cohort was 30 ±5.75 years. As per VAS, majority felt moderate pain (47.5%) in present study. The presenting symptoms were dysmenorrhoea (45.0%), dyspareunia (17.5%) and chronic pelvic pain (35.5%).

Conclusion: Degree of tubal involvement was more in all the women as compared to ovarian involvement. Post-operatively the intensity of the pain subsides.

Keywords: VAS, Adhesion, Endometriosis, Tubal, Ovarian

Introduction

Endometriosis is defined as the presence of endometrial glands and stroma like lesions outside of the uterus. [1] The lesions can be peritoneal lesions, superficial implants or cysts on the ovary, or deep infiltrating disease. [2]

Endometriosis affects 10–15% of all women of reproductive age and 70% of women with chronic pelvic pain. [1,3] Pain, a frequent symptom of endometriosis that manifests as dysmenorrhea, chronic pelvic pain, dyspareunia, and/or dyschezia, can be debilitating. Even among women without extensive disease, pain can limit daily life activities and negatively affect health-related quality of life and productivity, with substantial economic consequences. [4,5]

In current practice laparoscopic surgeries are the main indication for the diagnosis and treatment of endometriosis. This is because endometriosis occurs among the women with reproductive-age and frequently lead to chronic pelvic pain and/or infertility. [1,6]

Chronic pelvic pain (CPP) could be considered nowadays a deep health problem that challenges physicians all over the world. This because its aetiology is still unclear, the course of the disease

could vary a lot among different patients and through time in the same patient, and the response to treatments is not every time successful. [7]

Chronic pelvic pain (CPP) represents also a public financial problem, because it deeply increases medical cost for diagnosis and therapy of this type of patients: just considering USA, it costs approximately $881.5 million per year. [8] According to Gelbaya and El-Halwagy, CPP is cause for approximately 40% of laparoscopies and 10% to 15% of hysterectomies. [9] The existence of a relationship between chronic pelvic pain symptoms and endometriosis is widely accepted by gynaecologists but the nature of this relationship still remains poorly understood. [10]

The role of intra-abdominal pelvic adhesions to chronic pelvic pain (CPP) is still a matter of research. Previous reports have shown adhesion as one of the etiologic factors for intestinal obstructions and infertility. [11] Hence the present study was conducted with the aim to evaluate degree of chronic pelvic pain and degree of adhesion in women diagnosed with endometriosis.

Materials and method

The present clinico-observational study was conducted in the Department of Obstetrics and Gynecology, NSMCH, Amhara, Bihta,Patna, Bihar India, the study was carried out for the period of six months

Inclusion criteria

- Patients above 18 years of age
- Patients with confirmed diagnosis of endometriosis
- Who give informed consent

Exclusion criteria

- Age above 18 years
- Etiology of pelvic pain other than endometriosis
- Not willing to participate

Sample selection

The sample size was calculated using a prior type of power analysis by G* Power Software Version 3.0.1.0 (Franz Faul, Universitat Kiel, Germany). The minimum sample size was calculated, following these input conditions: power of 0.80 and $P \leq 0.05$ and sample size arrived were 40 participants.

Methodology

A comprehensive general physical examination, systemic and obstetric examination was carried out before the recruitment.

Pain intensity was assessed by visual analogue scale (VAS). Pain intensity was scored from 0 to 10, in which score 0 means no pain and 10 means worst pain. A score of 1-3, 4-6 and ≥7 was classified as mild, moderate and severe pelvic pain respectively by looking at the facial expression of the patients (Wong Baker faces).

All the patients underwent trans-vaginal sonography and colour Doppler and the site, size, and laterality were assessed. All the patients who underwent laparoscopy or laparotomy were assessed for the size, site, laterality of endometriomas, the degree and type of adhesions, superficial and POD obliteration. Surgical overview of entire abdominal cavity and pelvis was obtained. Entire uterus, fundus, its anterior surface, uterovesical pouch, posterior surface, pouch of Douglas, bilateral tubes and ovaries were examined for adhesions. All surfaces of ovary, ovarian fossae and tubes were visualized and any adhesions noted. Both the tubes were moved to see degree of mobility and to note fimbrial ovarian relationship. Fimbrial ends of fallopian tubes were assessed for complete enclosure.

Statistical analysis

The recorded data was compiled entered in a spreadsheet computer program (Microsoft Excel 2010) and then exported to data editor page of SPSS version 20

(SPSS Inc., Chicago, Illinois, USA). Descriptive statistics included computation of percentages, means and standard deviations were calculated.

Results

Table 1: demographic profile of the study population

Variables	N (%)
Age (years)	
18-22	7 (17.5%)
23-27	14 (35.0%)
28-32	10 (25.0%)
>32	9 (22.5%)
(Mean±SD)	30.69±3.78
Parity	
0	14 (35.0%)
1	7 (17.5%)
>1	19 (47.5%)
Total	40 (100.0%)

Mean age of the study of the population was 30.69 years. Majority showed parity more than one (40.0%).

Table 2: distribution of presenting symptoms in the study population

Presenting Symptoms	N (%)
Dysmenorrhoea	18 (45.0%)
Chronic Pelvic Pain	15 (37.5%)
Dyspareunia	7 (17.5%)
Total	40 (100.0%)

Major symptom reported was dysmenorrhea (45%) followed by chronic pelvic pain (37.5%) and dyspareunia (17.5%).

Table 3: distribution of intensity of pain as per VAS in the study population

Pain Intensity (VAS)	N (%)
Mild	13 (32.5%)
Moderate	19 (47.5%)
Severe	8 (20.0%)
Total	40 (100.0%)

Majority showed pain of moderate intensity (47.5%) followed by mild pain (32.5%) and severe pain (20.0%).

Table 4: distribution of type of adhesion in the study population

Degree of adhesion	Type N (%)	
	Tubal	Ovarian
Absent	1 (2.5%)	29 (72.5%)
Less than 1/3rd	9 (22.5%)	2 (5.0%)
1/3rd to 2/3rd	17 (42.5%)	6 (15.0%)
More than 2/3rd	13 (32.5%)	3 (7.5%)

Tubal type of adhesion was observed in majority of the subjects. 42.5% showed 1/3rd to 2/3rd degree of adhesion followed by >2/3rd (32.5%). Ovarian type of adhesion was observed in 27.5%.

Discussion

In a study by Holland et al, the age range of women with endometriosis was between 19-50 years and the mean age was 35.0±7.10 years. [12] Both the studies were found in agreement to present study findings. In the present study mean age were 30.69±3.78 years. Majority of women (60.0%) with endometriosis were in the age group of 23-32 years. In a study by Chapron et al, the age ranged between 17-41 years and the mean age was 31.9± 5.2 years. [13] In the present study, women with endometriosis presented with three types of symptoms i.e., dysmenorrhoea (45.0%), dyspareunia (17.5%) and chronic pelvic pain (35.5%). The symptoms were in combination. Majority felt moderate pain (47.5%) in present study. This was found in agreement to present study Somigliana E et al. [14] also reported dysmenorrhoea as the most common associated pain in 77.4% of women with endometriosis, dyspareunia was present in 46.2% of women while chronic pelvic pain was present in 51.6% of women. In a study by Holland et al. [13], the distribution of dysmenorrhoea, dyspareunia and chronic pelvic pain was 72.2%, 45.9% and 49.5% respectively. In a study by Dai et al. [15], dysmenorrhoea, chronic pelvic pain and dyspareunia comprised of 61.6%, 20.3% and 21.5% respectively.

We observed that the degree of tubal involvement was more in all the women. We also found that severity of pain increased with increasing density of adhesions and with greater degree of tubal involvement. Incidence of ovarian adhesions was observed in 27.5% of the population under study. This was found in agreement with the study conducted by Sonwani T et al. [16] majority had 1/3rd-2/3rd tubal adhesions (46.7%). [17]

After appropriate procedures, women were followed up after 6 weeks to assess pain by visual analogue scale. Pre-operatively, there were 32.5% women with mild pain, 47.5% with moderate pain and 20.0% with severe pain. While post-operatively, there were 63% women who reported no pain and 37% women reported mild pain and none reported moderate to severe pain. This difference in follow up pain was statistically significant (p=0.001).

Conclusion

According to the findings of the current research, the majority of the study population had moderate discomfort. In all of the women, the degree of tubal involvement was greater than the degree of ovarian involvement. The severity of the discomfort decreases post-operatively.

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