

Presentation Patterns and Medical History of Patients with Chronic Pelvic Pain

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Abstract

Objective: Study the presentation patterns and previous medical experience of patients with continuous or intermittent chronic pelvic pain.

Material and Methods: Presentation patterns of 113 patients with continuous or intermittent chronic pelvic pain were examined in an observational study. Details of history taken during previous consultations were assessed relative to a modified protocol based on the International Pelvic Pain Society assessment form.

Results: 80 and 33 patients presented with continuous or intermittent chronic pelvic pain respectively. There were no differences between the two groups regarding the combined prevalence of dysmenorrhoea with dyspareunia, bowel symptoms and pelvic tenderness. However, urinary symptoms were more common in the intermittent group and symptoms duration was longer in patients with continuous pain. History evaluation revealed 77 (68.1%), 91 (80.5%), 102 (90.3%), 18 (15.9%) and 98 (86.7%) patients were not interviewed before regarding detailed sexual or urinary history, painful defecation, pelvic infection or similar family history respectively. Furthermore, only 10 patients (8.8%) had bimanual pelvic examinations while menstruating. Further enquiry revealed personal and family history of autoimmune disorders in 58 patients (59.2%) with, and 3 (20.0%) without endometriosis, $p=0.005$. Hypothyroidism was the main disorder. Endometriosis was diagnosed in 98 (86.7%) patients, with no differences between the continuous or intermittent pain groups. 55 patients (48.7%) had previous surgery; 46 of them (83.5%) were performed for treatment of endometriosis. Combined dyspareunia, dysmenorrhoea and pelvic tenderness were highly associated with endometriosis which was diagnosed in 45 of 51 (88.2%) patients previously treated for irritable bowel syndrome.

Conclusion: Tailored protocols are necessary to guarantee proper interviewing of patients with chronic pelvic pain. Furthermore, combination of dysmenorrhoea, dyspareunia and pelvic tenderness during menstrual examination could be used for provisional diagnosis of endometriosis. Surgical interventions should be done in specialized centres for patients' safety and to reduce the need for repeated operations.

Keywords: Chronic pelvic pain; Endometriosis; Irritable bowel syndrome

Introduction

Chronic pelvic pain was defined as pain in the lower abdomen or pelvis, of at least six months duration, occurring continuously or intermittently, not associated exclusively with menstruation or sexual intercourse [1]. However, significant association between chronic pelvic pain with dysmenorrhoea and dyspareunia has been reported [2]. Patients with chronic pelvic pain usually get inadequate medical attention. A British study showed 60% of patients so affected did not see a specialist [3] and 28% of those who managed to see one did not have a diagnosis after 3-4 years. This pattern was similarly duplicated in the United States as the American Endometriosis Society released almost similar findings in 2002. One expects that the condition would be even worse in developing countries. The magnitude of the problem was portrayed by another British study which reported an annual chronic pelvic pain prevalence rate of 38/1000. It was as common as asthma, migraine and lower backache in that population. Furthermore, the monthly prevalence rates increased with age from 18.1/1000 in 15-20 years old women to 27.6/1000 in women older than 60 years [4]. These authors excluded patients with dysmenorrhoea, dyspareunia and chronic inflammatory bowel disease, otherwise these figures would have been much higher. The magnitude of the problem was further shown by the fact that 10% of all gynaecological visits [5] and 10-20% of hysterectomies and 40% of all laparoscopies [6] were done for pelvic pain. Such statistical data are not available from most developing countries. However, one study showed higher prevalence of endometriosis in Asian women than Caucasians [7].

Stone in 2004 [8] discussed the attitude of general practitioners and gynaecologists in relation to this problem. General practitioners

had difficulty in dealing with patients who had no definite diagnosis and needed long and repeated consultations. As well, they were aware of general lack of interested gynaecologists to refer patients to. Gynaecologists on the other hand, usually preferred to deal with patients with definitive pathology. But in reality, lack of expertise might have been the main problem because management of chronic pelvic pain was not included in most main stream training programmes.

Medical history has to be elaborate to cover all pain generating sources. The International Pelvic Pain Society (IPPS) pelvic pain assessment form is a good starting point to use. It covers almost all aspects including gastrointestinal, urinary and sexual history, history of abuse and psychological problems as well as gynaecological issues. Appropriate physical and imaging examinations are also necessary to help in making a diagnosis. However, total reliance on imaging techniques is fraught with problems as it relies mainly on the presence of endometriomas. Such cysts were seen only in 20-40% of patients with endometriosis [9,10]. Furthermore, deep endometriosis might not be easily diagnosed with ultrasound or even MRI. Even laparoscopy might give negative results in cases with deep lesions which are better felt during examination under anaesthesia than seen laparoscopically.

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Accordingly, special expertise is necessary to receive, diagnose and manage these cases. Recently an article described the benefits of transperineal 3D ultrasound scanning for the diagnosis of rectovaginal septum, uterosacral ligaments and rectal wall endometriosis missed during transvaginal ultrasound examinations [11].

Another big problem with chronic pelvic pain is the nature of the condition itself, as it is usually multifactorial. Furthermore, neuropathic pain might be involved in many cases. This dictates the need for a multidisciplinary team to deal with the different possible causes. Such facilities may not be readily available in many gynaecology departments. In this article, I will document the presentation patterns of patients who attended my clinic with chronic pelvic pain for specialist second opinion. I will also present patients' feedback regarding their previous consultations with special emphasis on the medical interviews.

Patients and Methods

113 patients with chronic pelvic pain were included in this observational study. They all consented to have their non-identifying information used for research and teaching purposes. Patients were divided in two groups to examine whether continuous or intermittent chronic pelvic pain had different presentation modes and possibly different causes. Patients were asked about their previous medical interviews and if they had been questioned regarding their sexual history including intercourse frequency and deep dyspareunia. They were also asked if an enquiry was made about previous history of pelvic inflammatory disease, bowel habits and the presence of dyschezia. Similar enquiry was made about detailed urinary symptoms in relation to pain, urgency, frequency, hesitancy, incomplete emptying of the bladder and nocturia. Enquiry was also made about the previous diagnosis and the line of management they received. Following an elaborate history based on the IPPS pain assessment form, all patients had menstrual bimanual vaginal and rectal examinations followed by transperineal and transvaginal ultrasound scanning. Transabdominal scanning was performed as necessary. The combined vaginal and rectal examination was done to examine the pouch of Douglas and uterosacral ligaments for induration and site-specific tenderness. The finger in the

vagina was used to push the cervix to one side while the finger in the rectum was used to examine the stretched contralateral uterosacral ligament. Patients were also asked whether pain quality simulated pain felt during intercourse. Also, the rectovaginal septum was rolled between the fingers in the vagina and rectum for induration and tenderness. All patients had laparoscopic examination as part of their management plan. Analysis included the presence of endometriosis, adhesions or any other pelvic pathology. Results were also assessed in relation to prior diagnosis of irritable bowel syndrome.

The Statistical Package for Social Sciences was used for data analysis. Crosstabulation with chi square test and one-way analysis of variance (ANOVA) were used as appropriate. $P \leq 0.05$ was used to indicate significance with observed power=0.8.

Results

Respectively, 80 (70.8%) and 33 (29.2%) of 113 patients presented with continuous or intermittent pelvic pain. Dysmenorrhoea was reported by 86 patients (76.1%), dyspareunia by 88, (77.9%), dyschezia by 28 (24.8%) and urinary symptoms by 48 (42.5%) patients in different combinations. Bowel symptoms including bloating sensation, constipation, diarrhea and dyschezia were reported by 104 (92.0%) of all patients. The most frequent combination was dysmenorrhoea and dyspareunia in 75/113 patients (66.4%). This was followed by combined dysmenorrhoea and dyspareunia with bowel symptoms in 69/113 (61.1%), dysmenorrhoea and dyspareunia with tender pelvis in 43/113 (38.1%) and dysmenorrhoea and dyspareunia with only dyschezia in 11/113 (9.7%) patients. There were no differences in the prevalent combination of dysmenorrhoea with dyspareunia, dyschezia and pelvic tenderness, between patients with continuous (52/80, 65.0%) and intermittent pain (18/33, 54.5%), $p=0.394$. However, urinary symptoms were more common in the intermittent (20/33, 60.6%) than the continuous pain group (28/80, 35%), $p=0.021$. On the contrary, symptoms duration (mean with 95% confidence interval) at presentation was significantly longer in patients with continuous pain. It was 6.29 years (CI 5.89-6.68) compared to 5.06 years (CI 4.57-5.55) in patients with the intermittent type, $p=0.001$.

Variables	Endometriosis	No endometriosis	Significance
Dysmenorrhoea and dyspareunia	75 of 75 (100%)	23 of 38 (60.3%)	$p=0.000^{***}$
Dyschezia	26 of 28 (92.9%)	72 of 85 (84.7%)	$p=0.223$
Urinary symptoms	41 of 48 (85.4%)	57 of 65 (87.7%)	$p=0.467$

***Indicates very highly significant correlation.

Table 1: Shows combination of dysmenorrhoea and deep dyspareunia was 100% diagnostic of endometriosis in this series, whereas dyschezia and urinary symptoms were not significantly correlated with endometriosis.

Variables	Present	Absent	Significance
Endometriosis	89 of 98 (90.8%)	07 of 15 (45.0%)	$p=0.000^{***}$
Adenomyosis	34 of 40 (85.0%)	62 of 73 (84.9%)	$p=1.000$
Previous PID	20 of 23 (87.0%)	76 of 90 (84.4%)	$p=1.000$
Previous surgery	46 of 55 (83.6%)	50 of 58 (86.2%)	$p=0.452$
Pelvic adhesions	79 of 93 (84.9%)	17 of 20 (85.0%)	$p=1.000$

***Indicates very highly significant correlation.

Table 2: Shows the relationship between the possible causes of pain and pelvic tenderness during combined vaginal and rectal examinations, only endometriosis was significantly correlated.

Variables	Present	Absent	Significance
Dysmenorrhoea and dyspareunia	69 of 75 (92.0%)	27 of 38 (71.0%)	$p=0.005$
Dyschezia	21 of 28 (75.0%)	75 of 85 (88.2%)	$p=0.125$
Urinary symptoms	36 of 48 (79.2%)	58 of 65 (89.2%)	$p=0.184$

Table 3: Shows the relationship between the mode of presentation and pelvic tenderness during combined vaginal and rectal examinations, only combined dysmenorrhoea and dyspareunia were significantly correlated.

Endometriosis was diagnosed in 98 of 113 (86.7%) patients, with no difference between those with continuous (71 of 80, 88.8%) or intermittent (27 of 33, 81.8%) pain, $p=0.366$. Furthermore, more patients with endometriosis had combined dysmenorrhoea and dyspareunia than those with no endometriosis. In fact, all patients with combined dysmenorrhoea and dyspareunia were diagnosed with endometriosis (Table 1). Urinary symptoms and dyschezia were not significantly different between the two groups. Studying the correlation between endometriosis and adenomyosis showed no significant correlation between the two. 34 of 98 (34.7%) patients with endometriosis had adenomyosis versus 6 of 15 (40.0%) patients with no endometriosis, $p=0.0774$.

History evaluation revealed 77 (68.1%), 102 (90.3%), 91 (80.5%), 18 (15.9%) and 98 (86.7%) patients were not interviewed before regarding sexual history, painful defecation, details of urinary symptoms, history of pelvic inflammatory disease or similar family history of pelvic pain respectively. Furthermore, only 10 of 113 patients (8.8%) had pelvic examination during menstruation. 55 patients (48.7%) had previous surgery; 46 of them (83.5%) were performed for treatment of endometriosis. Most important, diagnostic laparoscopy showed 45 of 51 (88.2%) patients previously treated for irritable bowel syndrome had endometriosis and 42 (82.4%) showed significant pelvic adhesions. Furthermore, 27 patients (52.9%) previously treated for IBS had previous surgery. Elaborating on personal and family history showed 58 patients with endometriosis (59.2%) had personal or strong family history of autoimmune disorders against 3 (20%) patients with no endometriosis, $p=0.005$. Hypothyroidism was the most common one. Other problems included severe asthma, psoriasis, vitiligo and systemic lupus.

Furthermore, I studied the correlation between the mode of presentation and the possible causes of pain against pelvic tenderness elicited during pelvic examination. Significant correlations were shown only by endometriosis as a diagnosis and dyspareunia as a symptom (Tables 2 and 3).

Discussion

As stated before, most patients were not interviewed regarding their sexual history, painful defecation, history of PID or details of their urinary symptoms. The importance of such history was shown by the fact that all patients with combined dyspareunia and dysmenorrhoea were shown to have endometriosis in this series. Similar family history of pelvic pain and endometriosis was not probed, bearing in mind the genetic tendency to develop endometriosis. The relative risk in a first-degree relative was reported to be 7.2 by Moen and Magnus [12]. They also found that severe manifestations of the disease were more common in patients with a positive family history compared to those with no history of endometriosis (26% vs 12%). A similar finding was also documented by Kashima et al. [13]. They reported a relative risk of 5.7 in sisters of affected patients compared to healthy fertile women. Likewise, only 8.8% of patients in our study group had menstrual pelvic examinations during previous consultations, bearing in mind that 50% of endometriosis cases might have been missed if pelvic examination was done at other times of the cycle [14]. The importance of such examination was further verified in this study by the fact that pelvic tenderness simulating pain during intercourse was elicited in 90.8% patients with endometriosis. Accordingly, missing sexual history and the combined menstrual vaginal and rectal examinations would reduce the efficacy of making a diagnosis.

It was also evident in this group of patients that IBS was grossly

over diagnosed. This might be a reflection of the 92.8% prevalence of bowel symptoms. Cardinal symptoms of IBS included abdominal pain and altered bowel habits which were common in most of the patients in this series. The diagnosis of IBS is generally made by following careful review of the patient's symptoms, taking a thoughtful history and evaluating the presence of warning signs. These should include anaemia, hematochezia, unintentional weight loss, or a family history of colorectal cancer or inflammatory bowel disease. This should be complemented by performing a guided physical examination and using the Rome IV criteria [15]. Unfortunately, a 'guided' bimanual pelvic examination is not a practical option in gastroenterology outpatient clinics. Hence the medical examination of the female patients would not be complete. This was reflected by the fact that 45 of 51 (88.2%) patients previously treated for IBS had tender pelvis during combined vaginal and rectal menstrual examinations in this study. The Rome criteria indicated that pain should be recurrent, at least once weekly on average during the previous 3 months. It should also be associated with change in frequency and/or form of stool. Two of these 3 criteria should be fulfilled to make a diagnosis. Most of our patients satisfied these criteria yet proved to suffer from endometriosis as shown by laparoscopy.

Interestingly, constipation, diarrhea, bloating sensation and even painful defecation or painful intercourse were not usually volunteered by the patients and had to be extracted during consultation. This confirms the need for history taking to be thorough and inclusive of all these problems. Furthermore, 52.9% of all patients had previous surgery without solving their chronic pelvic pain problem. This resulted in adhesions formation which made exposure of deep endometriosis and its excision more difficult in many cases. Most of these problems were due to lack of experience as endometriotic deposits were most likely treated by fulguration and cauterization rather than peritonectomy and excision.

Conclusion

For appropriate outpatient consultations, the IPPS pain history chart and guidelines are good tools which could be adopted by doctors involved in the management of patients with chronic pelvic pain. Furthermore, patients with combined dysmenorrhoea and dyspareunia associated with significant tenderness during menstrual pelvic examination could be treated medically for endometriosis until proven otherwise. Laparoscopy could be reserved for patients with large endometriomas, failed medical treatment, or for cases with pain affecting quality of life and those with inconclusive diagnosis. Furthermore, lack of difference between intermittent and continuous pelvic pain indicated that patients in both groups should be managed similarly. Moreover, primary surgical interventions should be carried in specialized centres with multidisciplinary setups to reduce the need for repeated surgeries. These centre could also be used for training young interested doctors to pursue this subspecialty.

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