Prevalence of Endometriosis and Its Symptoms among Young Jordanian Women with Chronic Pelvic Pain Refractory to Conventional Therapy

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Abstract

Objective: This study sought to explore the prevalence and clinical manifestations of endometriosis in young women with chronic pelvic pain (CPP) refractory to conventional medical therapy.

Methods: This prospective clinical interventional study was conducted in two general and private hospitals in the city of Al-Karak in Jordan. A total of 28 female patients aged ≤21 who had CPP refractory to conventional medical therapy were recruited during the years 2010–2014. The intervention used in the study was laparoscopy. Endometriosis was staged according to the American Society for Reproductive Medicine classification. The main outcome measures were the presence and stage of endometriosis at laparoscopy, the presence of cold intolerance, and the severity and duration of pain symptoms.

Results: The mean age of participants was 18.4 (range 15 to 21). Endometriosis was found in 20 of 28 participants (71.4%), as follows: stage I, 9 of 20 (45.0%); stage II, 8 of 20 (40%); stage III, 2 of 21 (10%); and stage IV, 1 of 21 (5%). Notably, 16 of 28 (57.1%) of all participants reported cold intolerance, including 14 of 20 (70%) with endometriosis and 2 of 8 (25%) without endometriosis (Fisher exact [1-tail] $P = 0.039$). There was no association between stage of disease and age distribution (≤18 and >19 to 21; $P = 0.7$) or with duration of symptoms (≤2 and >2 years) and the presence of cold intolerance ($P > 0.05$). However, severity of pain symptoms (<7 vs. ≥7, as measured by the visual analogue scale [VAS]) was associated significantly with stage of disease ($P = 0.011$).

Conclusion: The prevalence of endometriosis among young women with CPP refractory to conventional therapy was high, mainly in the mild stage. Cold intolerance was highly associated with endometriosis.

Key Words: Diagnosis, endometriosis, pelvic pain, cold intolerance, prevalence

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INTRODUCTION

Endometriosis is defined as the presence of endometrial-like stroma and glands outside the uterine cavity.[1] Endometriosis-associated pain symptoms greatly affect the lifestyle of many women with this debilitating disease.[2] Pain is the predominant symptom reported by women who are found to have endometriosis and is regarded as the most common reason for these women to seek medical care.[3] The main manifestations of endometriosis in young women are dysmenorrhea,[4] dyspareunia,[5] chronic pelvic pain (CPP),[6] and infertility,[7] and they may manifest with other symptoms such as dyschezia and dysuria.[8]

The diagnosis of endometriosis among young women is sometimes enigmatic because both clinicians and patients are reluctant to consider laparoscopy in this age group. However, history and clinical examination may aid clinicians to suspect endometriosis.[9] It is widely agreed that laparoscopy with biopsy of the suggestive lesions is the gold standard for diagnosis as well as management intervention

in severe cases, especially in patients with endometriosis refractory to conventional therapy.[10]

CPP is defined as cyclic or acyclic pelvic pain that persists for at least 6 months, requires medical or surgical evaluation and intervention, and can cause functional disability.[11] Very few epidemiological data are available on the incidence or prevalence of endometriosis among young women. However, some data suggest that about two thirds of adult women with endometriosis report symptoms arising before age 20.[12] Endometriosis affects approximately 50% to 87% of women with CPP,[6,13] and almost one half of patients with endometriosis-associated CPP will be refractory to conventional treatment.[14]

The clinical observation of an obvious reduction of pain symptoms of endometriosis during pregnancy gave rise to the concept of treating patients with a pseudo-pregnancy regimen by diminishing the effect of ovarian hormones on the endometrium. Combinations of high-dose estrogens and progestogens were first used, followed by progestogens alone.[15] Oral progestogens have been used for the treatment of endometriosis and endometriosis-associated complaints for more than 40 years. Progestogens, especially non-androgenic progestogens, are well tolerated and have few side effects; they can be used repeatedly or continuously over a long period of time. As a rule the pain symptoms usually return after cessation of treatment.[16] Although the effectiveness of these agents is well recognized, not many randomized trials are available to confirm that observation.[16–20]

The aim of our study was to explore the prevalence and clinical manifestations of endometriosis in young Jordanian women with CPP refractory to conventional medical therapy.

METHODS

In our study the criteria of inclusion were as follows: (1) patients with CPP for more than 6 months who were not responding in terms of pain intensity after conventional medical treatment including combined oral contraceptives, norethisterone acetate (10 mg daily), and non-steroidal anti-inflammatory drugs; and (2) patients with no previous surgical diagnosis of endometriosis and no previous history of any laparoscopy or laparotomy.

A total of 28 patients met study eligibility criteria and were selected for the study between 2010 and 2014. Those patients who agreed to participate were scheduled for laparoscopy to investigate the cause of their pelvic pain and to ascertain the need for possible surgical management. All participants gave written informed consent. The Ethics and Scientific Research Committees of Mutah University in Jordan approved the study (2010–2012).

All relevant information regarding the patients was obtained preoperatively, including the following: age and age at menarche; menstrual patterns; pain scores (visual analogue scale [VAS]; pain intensity was measured by asking participants to describe their pain symptom intensity on a scale of 1 to 10 as follows: "no pain," score of 0; mild pain, 1–4; moderate pain, 4–7; severe pain or "pain as bad as it could be" or "worst imaginable pain," ≥7); medical, surgical, and gynaecological history; and medical treatment used for pain symptoms. We asked our patients specifically about the presence of cold intolerance. To exclude other causes of cold intolerance such as anemia and hypothyroidism, we performed complete blood count and serum thyroid-stimulating hormone determinations. None of the participants had a prior diagnosis of genital malformations, and none reported a diagnosis of endometriosis in the mother or sisters. All 28 participants reported oral contraceptive, non-steroidal anti-inflammatory drug, and norethisterone acetate use, and no participant reported GnRH agonist use.

A preoperative ultrasound scan was performed in all participants. Laparoscopic pelvic assessment was performed in a systematic fashion using methodology suggested by Bedaiwy et al.[21] The pelvis was divided into two midline zones (zone I and II) and right and left lateral zones (zone III and IV). Laparoscopy was performed by the principal author (M.A-J.) and assisted by the co-authors (S.Y. and A.A.). Per study protocol all patients had peritoneal biopsy samples taken from pouch of Douglas and posterior ovarian fossa for confirmation. When endometriosis was found, lesion biopsy samples were taken for confirmation. Endometriosis was staged according to the 1985 revised American Society for Reproductive Medicine classification.[22] Again, when endometriosis was found, it was treated accordingly by excision of infiltrating lesions, vaporization or coagulation of superficial lesions, and adhesolysis. In participants with endometrioma, a stripping technique was used with minimal thermal ablation of the cystic bed. In the participant with stage IV endometriosis with bowel involvement a shaving technique was used.

RESULTS

Our results show that the mean age of patients with endometriosis was (18.4 ± 1.759) compared with controls (patients with CPP who had no evidence of endometriosis at laparoscopy and no histological evidence of