

Prevalence of endometriosis at a university hospital in Jeddah, Saudi Arabia

A.A. Rouzi, N. Sahly, S. Kafy, D. Sawan, H. Abduljabbar

Department of Obstetrics and Gynecology, King Abdulaziz University, Jeddah (Saudi Arabia)

Summary

Purpose: To determine the prevalence of endometriosis in women who had gynecologic laparoscopy at a university hospital in Saudi Arabia. **Materials and Methods:** The hospital records were reviewed to identify all women who had undergone gynecological laparoscopy between January 2008 and December 2013. **Results:** A total of 190 gynecologic laparoscopies were performed. The indications for laparoscopy were infertility (n = 76; 40%), chronic pelvic pain (n = 34; 17.9%), infertility and chronic pelvic pain (n = 7; 3.7%), ectopic pregnancy (n = 30; 15.8%), pelvic mass (n = 12; 6.3%), removal of a missing intrauterine contraceptive device (n = 6; 3.2%); other indications were documented in 25 cases (13.1%). Endometriosis was diagnosed in 21 women (11.1%). The presenting complaints in women with endometriosis were pelvic pain (n = 7; 33.3%), infertility (n = 5; 23.8%), pelvic pain and infertility (n = 6; 28.6%), and pelvic mass (n = 2; 9.5%); the complaint was unknown in one patient (4.8%). **Conclusion:** Endometriosis was uncommon in women who had undergone gynecologic laparoscopy.

Key words: Endometriosis; Infertility; Laparoscopy; Pelvic pain.

Introduction

Endometriosis is an estrogen-dependent inflammatory disease that causes intractable pelvic pain and infertility in millions of women in their reproductive years. Approximately 10% of women in the United States are estimated to have endometriosis, [1] and about 30% of infertile women have endometriosis [2, 3]. However, the basic epidemiology of endometriosis has been difficult to evaluate owing to the fact that a large proportion of women with the disease may be asymptomatic [4, 5]. Endometriosis may be consequently underreported, as diagnosis can only be made definitively by the clinical expertise of the surgeon. Furthermore, because women are often taught to consider severe pain during menses to be normal, they do not seek medical care. As a result, many cases of endometriosis remain undiagnosed, also contributing to the underreporting of this disease. In Saudi Arabia, only a few isolated cases of endometriosis have been reported, [6-9] and the prevalence of this disease is unknown. The objective of this study was to determine the prevalence of endometriosis in women who had gynecologic laparoscopy at a university hospital in Jeddah, Saudi Arabia.

Materials and Methods

A retrospective chart review was performed of the medical records of all women who had undergone gynecological laparoscopy in the Obstetrics and Gynecology Department of King Abdulaziz University Hospital, Jeddah, Saudi Arabia from Janu-

ary 2008 through December 2013. Permission to conduct the study was granted by the Biomedical Ethics Research Committee of King Abdulaziz University. For all cases included in this study, the authors collected demographic data, indications for laparoscopy, diagnosis, and gynecologic operations performed.

Statistical analysis

The data were analyzed using the Statistical Package for the Social Sciences, version 22.0. Descriptive statistics were computed for all variables. Results are expressed as frequency (percent) and as mean \pm standard deviation (SD).

Results

During the study period, 190 gynecologic laparoscopies were performed. The age of the patients was 33.8 ± 8.9 (mean \pm SD) years. The indications for laparoscopy were: infertility, 76 (40%); chronic pelvic pain, 34 (17.9%); infertility and chronic pelvic pain, seven (3.7%); ectopic pregnancy, 30 (15.8%); pelvic mass, 12 (6.3%); and removal of a missing intrauterine contraceptive device, six (3.2%). Other indications were documented in 25 cases (13.1%). Endometriosis was diagnosed in 21 women (11.1%). The presenting complaints in these women were pelvic pain (n = 7; 33.3%), infertility (n = 5; 23.8%), pelvic pain and infertility (n = 6; 28.6%), and pelvic mass (n = 2; 9.5%). The presenting complaint was unknown in one patient (4.8%). Diagnostic laparoscopy was done in 93 (48.9%) women, while operative laparoscopy was performed in 97 (51.1%) cases.

Revised manuscript accepted for publication July 3, 2014

Discussion

This study is, to the best of the authors' knowledge, the first to assess the prevalence of endometriosis in a cohort of women at a university hospital in Jeddah, Saudi Arabia. The present analysis shows that the prevalence of endometriosis in women who had undergone laparoscopic surgery was 11.1%. Previous studies have reported varying prevalence rates for endometriosis, ranging from 0.7% to 45% in surveys of asymptomatic women [10], 20% to 40% in infertile women [11], 6% to 18% in women undergoing sterilization [12], and 15% to 70% in cases with chronic abdominal pain [13-15].

Previous studies [16, 17] showed that dysmenorrhea is frequent among women with endometriosis. Moreover, other authors found that chronic pelvic pain was reported as the main complaint for which patients with endometriosis seek medical attention [18, 19]. Although pelvic pain was the most common presenting complaint in women with endometriosis in the present study, it was not, unfortunately, specifically mentioned in the patients' records whether pelvic pain was due to menstruation. Infertility was a relatively common symptom in the present cohort, diagnosed in 23.8% of the women. In the medical literature, approximately 30% of women with endometriosis have primary or secondary infertility. Although it is reported as one of the main clinical features of endometriosis, [17] some studies [2, 3] showed that a significant proportion of women may not present symptoms of endometriosis at all, and the disease will remain undiagnosed until the patient complains or requires surgery for infertility.

The findings of this study should be interpreted with caution because of its limitations. First, it is limited by its retrospective nature. Second, because it was hospital-based, the results cannot be generalized to the population of Jeddah. Third, cases of endometriosis may have been missed given that a significant number of patients may not present any symptoms [2, 3]. In addition, women may be precluded from seeking medical attention for socio-cultural reasons, as gynecologic issues are generally considered taboo in an ultraconservative society such as Saudi Arabia.

Conclusion

The prevalence of endometriosis among women who underwent gynecologic laparoscopy at King Abdulaziz University Hospital was low. While it is possible that the prevalence may be underreported due to socio-cultural barriers and challenges in making an accurate diagnosis, patients with endometriosis most commonly present with pelvic pain and / or infertility. Future prospective studies with a larger patient group are warranted to explore the prevalence of endometriosis in women who undergo gynecologic laparoscopy at the present institution and to determine the most common presentation mode.

References

- [1] Leibson C.L., Good A.E., Hass S.L., Ransom J., Yawn B.P., O'Fallon W.M., *et al.*: "Incidence and characterization of diagnosed endometriosis in a geographically defined population". *Fertil. Steril.*, 2004, 82, 314.
- [2] Ruiz-Velasco V.: "Endometriosis". Mexico: Intersistemas, 2004.
- [3] Ozkan S., Murk W., Arici A.: "Endometriosis and infertility: epidemiology and evidence-based treatments". *Ann. N. Y. Acad. Sci.*, 2008, 1127, 92.
- [4] Viganò P., Parazzini F., Somigliana E., Vercellini P.: "Endometriosis: epidemiology and aetiological factors". *Best Pract. Res. Clin. Obstet. Gynaecol.*, 2004, 18, 177.
- [5] Missmer S.A., Cramer D.W.: "The epidemiology of endometriosis". *Obstet. Gynecol. Clin. North Am.*, 2003, 30, 1.
- [6] Mushtaq N., Dar F.A., Shahid M.A.: "Umbilical endometriosis". *J. Coll. Physicians Surg. Pak.*, 2007, 17, 429.
- [7] Sait K.H.: "Massive ascites as a presentation in a young woman with endometriosis: a case report". *Fertil. Steril.*, 2008, 90, 2015. e17. doi: 10.1016/j.fertnstert.2008.07.021. Epub 2008 Sep 7.
- [8] Mostafa H.A., Saad J.H., Nadeem Z., Alharbi F.: "Rectus abdominis endometriosis. A descriptive analysis of 10 cases concerning this rare occurrence". *Saudi Med. J.*, 2013, 34, 1035.
- [9] Seyam R., Mokhtar A., Al Taweel W., Al Sayyeh A., Tulbah A., Al Khudair W.: "Isolated ureteric endometriosis presenting as a ureteric tumor". *Urol. Ann.*, 2014, 6, 94.
- [10] Farquhar C.M.: "Extracts from the 'clinical evidence'. Endometriosis". *BMJ*, 2000, 320, 1449.
- [11] Mahmood T.A., Templeton A.: "Prevalence and genesis of endometriosis". *Hum. Reprod.*, 1991, 6, 544.
- [12] Matorras R., Rodriguez F., Pijoan J.I., Ramon O., Gutierrez de Teran G., Rodriguez-Escudero F.: "Epidemiology of endometriosis in infertile women". *Fertil. Steril.*, 1995, 63, 34.
- [13] Laufer M.R., Goitein L., Bush M., Cramer D.W., Emans S.J.: "Prevalence of endometriosis in adolescent girls with chronic pelvic pain not responding to conventional therapy". *J. Pediatr. Adolesc. Gynecol.*, 1997, 10, 199.
- [14] Moen M.H., Schei B.: "Epidemiology of endometriosis in a Norwegian county". *Acta Obstet. Gynecol. Scand.*, 1997, 76, 559.
- [15] Stanford E.J., Koziol J., Feng A.: "The prevalence of interstitial cystitis, endometriosis, adhesions, and vulvar pain in women with chronic pelvic pain". *J. Minim. Invasive Gynecol.*, 2005, 12, 43.
- [16] Gruppo Italiano per lo Studio dell'Endometriosi: "Relationship between stage, site and morphological characteristics of pelvic endometriosis and pain". *Hum. Reprod.*, 2001, 16, 2668.
- [17] Harada T.: "Dysmenorrhea and endometriosis in young women". *Yonago Acta Med.*, 2013, 56, 81.
- [18] Berker B., Lashay N., Davarpanah R., Marziali M., Nezhat C.H., Nezhat C.: "Laparoscopic appendectomy in patients with endometriosis". *J. Minim. Invasive Gynecol.*, 2005, 12, 206.
- [19] Teodoro M.C., Genovese F., Rubbino G., Palumbo M., Zarbo G.: "Chronic pelvic pain in patients with endometriosis: results of laparoscopic treatment". *Minerva Ginecol.*, 2012, 64, 9.

Address reprint requests to:
A.A. ROUZI, M.D.
PO Box 80215
Jeddah, 21589 (Saudi Arabia)
e-mail: aarouzi@gmail.com