

THE PREVALENCE OF ENDOMETRIOSIS IN THE INFERTILE WOMEN IN MOSUL

***Dr. Luma Alsarraj, D.G.O.**

Gynaecologist and Obstetrician, Infertility Centre Al-Batool Teaching Hospital, Mosul -Iraq

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ABSTRACT

Objective: To measure the prevalence of endometriosis in the infertile woman, its severity and its relation to the age of women. **Study Setting:** Infertility Centre at Al –Batool Teaching Hospital in Mosul. **Study Design:** Patient series study design. **Patients and Methods:** The total number of patients attending the infertility centre was (8553). The number of patients enrolled for the study was (477) from July 2004 to July 2006. Their ages were between 21 and 43 years old (mean age 28.22 ± 5.37). All the patients were evaluated by history, physical examination and investigations included tests for ovulation, hormone analysis, Hysterosalpingography for tubal patency and laparoscopy. According to the laparoscopic findings 37 patients diagnosed as endometriosis. These divided into three groups. A- mild. B-Moderate and C-as severe according to staging by Revised American fertility society system (RAFS) classification of endometriosis in 1985. **Results:** Thirty Seven patients diagnosed as endometriosis which account for 7.75% of infertile women. 25 of them had mild disease which account for 67.56%, 6 patients had moderate disease which account for 16.22% and 6 patients had severe disease which account for 16.22% of the endometriotic patients. The prevalence of endometriosis confirmed by Laparoscopy was greatest among women between 25 and 35 years old mean age, mean age (28.03 ± 1.86). **Conclusion:** This study revealed that significant number of infertile women has endometriosis and had accounted for 7.75% of the infertile women. The majority of the patients had mild endometriosis and highlighted Successful management of these cases in our centre was achieved following super ovulation and intra uterine insemination (IUI). However those with moderate and severe endometriosis may need surgical interference and more advanced technecology of assisted reproductive technique (ART) like invitro fertilization (I.V.F) and intracytoplasmic sperm injection (ICSI).

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INTRODUCTION

Endometriosis is an enigmatic disease; it was described for the first time in 1860 by Von Rokitansky as the presence and growth of the glands and stroma of the lining of the uterus outside the lining of the uterine cavity (Ash Monga, 2006). Endometriosis is a benign, but a progressive disease. Most commonly found in the pelvis, on the surface of the ovary, on the pelvic peritoneum, the fallopian tubes and broad ligament. (Edmonds, 1999). Endometriosis is found in 25% to 40% of women with infertility compared with only 2% to 5% of the general population (Bruce, 2000). It is common cause of pelvic pain.

***Corresponding author: Dr. Luma Alsarraj, D.G.O.**

Gynaecologist and Obstetrician, Infertility Centre Al-Batool Teaching Hospital, Mosul -Iraq

The symptoms experienced by a patient may seem disproportionate to the extent of the disease observed within that patient's pelvis (Middle East Endometriosis) The typical patient with endometriosis is in her mid-30s, is nulliparous and involuntarily infertile (Chia-Yi, 2004). There is multifactorial pathogenesis to this subfertility; the presence of few small endometriotic deposits might render the patient subfertile. In the more severe stages of endometriosis there is commonly anatomical distortion, with peri-adnexial adhesions and destruction of ovarian tissue when endometriomas develop (John Bonnar, 2001). The scar tissue can block the fallopian tubes or interfere with ovulation (Kathy, 1998). It has been suggested that decreased fertility in endometriosis may be associated with altered folliculogenesis and ovulatory dysfunction, increased sperm phagocytes, abnormal tubal transport impaired fertilization and implantation, luteinized unrupture follicle syndrome (LUFs), inhibition of early embryo

transport, luteal phase defect and immunologic alteration and early pregnancy failure (Eris, 1997). The diagnosis of endometriosis by laparoscopy remains the gold standard. laparoscopic evaluation allows a complete survey of peritoneal surface, biopsy of suspicious lesions, and even treatment.(9) Women with minimal or mild Endometriosis who undergo laparoscopy should be offered surgical ablation or resection of endometriosis plus laparoscopic adhesiolysis. Ovarian endometriosis should offered laparoscopic cystectomy. Women with moderate or severe endometriosis should be offered surgical treatment by mechanical excision or ablation using coagulation or vaporization with either electrical or laser surgery because it improves the chance of the pregnancy. (10) The management of endometriosis depends on the stage of the disease following the Revised American fertility Society's (RAFS) scoring system to classify endometriosis which is now the most widely used standard method. It is based on the location, number and depth of the implants and the associated adhesions in the peritoneum.

Patients and Method: Total number of the patients who have been attending the infertility centre at Al-Batool Teaching Hospital was (8553). Laparoscopy was done to 477 infertile women during the period from 1/7/2004 to 1/7/2006.their ages between 21 and 43 years old (mean age 28.22 ± 5.37). All patients were evaluated by history, physical examination and investigations which included tests for ovulation which are serial ultrasonography for asseement of maturation of graffian follicles, cervical mucous study and serum progesterone level at day 21 of the menstrual cycle. Hormone analysis to detect any endocrine abnormalities like (FSH) serum follicular stimulating hormone (LH) serum lutenising hormone, serum prolactin level and serum testosterone level. Hysterosalpingography as a test for tubal patency and laparoscopy. The gross pathologic changes of endometriosis exhibit wide variability in color, shape, size, and associated inflammatory and fibrotic changes. The color of the lesion varies widely and may be red, brown, black, white, or yellow or a pink, clear, or red vesicle. New lesions are small, sometimes blood filled cysts that are less than 1 cm in. The older lesions have more intense scarring and are usually puckered or retracted from the surrounding tissue. The study population was divided into 3 groups according to staging by (RAFS) Revised American fertility society system classification of endometriosis in 1985. It is depend on depth of invasion, bilaterality, ovarian involvement, as well as density of associated adhesions and extent of cul-de-sac involvement. From this system, point scores are assigned and tallied, with scores of 1-15 representing minimal or mild disease, 16-40 moderate, and > 40 severe.

RESULTS

The study revealed that endometriosis was found in 37 patients which accounted for 7.75% of infertile women. the assessment of the severity of the disease staging according to (RAFS) Revised American fertility society system classification of endometriosis in 1985 was done, The patients have been divided into three groups A, B and C. stage I and II minimal and mild endometriosis was grouped together into Group A since they have the same line of management and detected in 67.56%. Group B stage III moderate cases in 16.21% and group C stage IV severe cases was detected in 16.21%% of the patients.

Table 1. Stages of endometriosis among study design

Stage of endometriosis	Number of patient	%
Stage I	25	67.56%
Stage II		
Stage III	6	16.22%
Stage IV	6	16.22%
Total	37	

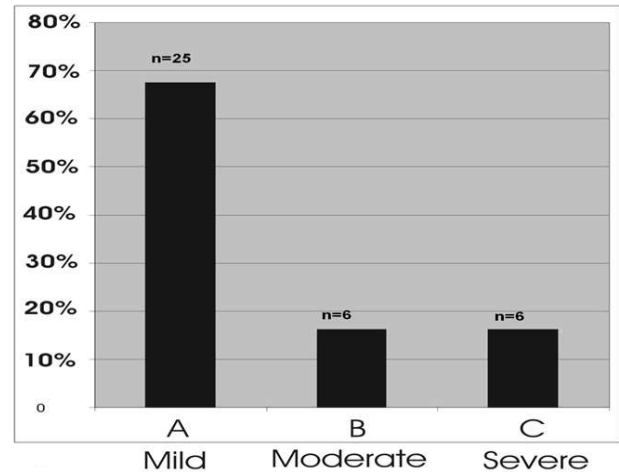


Figure 1. The stage of endometriosis

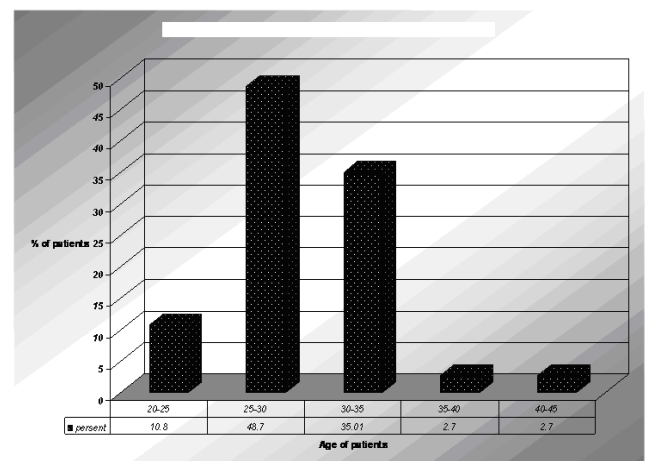


Figure 2. Distribution of endometriotic cases according to age

DISCUSSION

The study revealed that endometriosis was found in 37 patient which accounted for 7.75% of the infertile women .the rate was lower than the study of Preciado Ruiz and his colleagues in 2005(11) who found that endometriosis was reported in (34.5%) and also lower than the study done by Stacey A.Missmer and his colleagues in 2004 (incidence of Laparoscopically confirmed endometriosis) (12) who found that approximately 20% of all infertile women have endometriosis. The majority of patients had minimal and mild endometriosis and these are good candidate for assisted reproductive technecology and Successful management of these cases was achieved.the present study shows that 67.56% had minimal and mild disease which is higher than the figure of Preciado Ruiz and his colleagues (Stacey, 2004), who they found that 50% of their patients were mild endometriosis and also higher than that study found by Stacey A.Missmer and his colleagues who found that the majority of Laparoscopically confirmed cases (61%) had minimal or mild disease (Haya, 2004). The present study reported that endometriosis was

greatest among women aged 25 and 35 years (mean age 28.03±1.86). Compared to the study of Preciado Ruiz and his colleagues and the study of Stacey A. Missmer and his colleagues who they found that the greatest number of their patients were among the age group 30.-31 and 25-29 years old respectively (Elizabeth, 2002; Hammooode Amal, 2001 and Jonathan, 1996).

Conclusion

This study revealed that endometriosis is prevalent among women attending infertility centre at Al-Batool Teaching Hospital. The majority of cases had minimal and mild disease form. The highest prevalence was amongst the age group 25-30 years old, mean age (28.03±1.86).

Recommendation

Endometriosis regarded as important cause of female infertility although it remains a difficult clinical problem once it diagnosed, staging must determined to start treatment accordingly.

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