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ENDOMETRIOSIS – A CHALLENGE TO THE GYNAECOLOGISTS

Gynecology

Dr Manjula N. V Assosiate Professor, Dept Of OBG, Ramaiah Medical College Hospital, Mathikere, Bangalore

Dr Shruthi S Resident, Dept Of OBG, Ramaiah Medical College Hospital, Mathikere, Bangalore

ABSTRACT

INTRODUCTION: Endometriosis affects an estimated 1 in 10 women during their reproductive years which are approximately 176 million women in the world. It is an enigmatic disease often called an "Invisible Illness" with severe consequences. Endometriosis is an estrogen-dependent disorder that can result in substantial morbidity, including pelvic pain, multiple operations, and infertility. Surgical or medical therapy is efficacious for pelvic pain due to endometriosis. Operative laparoscopy for endometriosis consists of electro cautery or laser destruction of endometriotic implants and adhesiolysis.

AIMS AND OBJECTIVES: To determine whether laparoscopic surgery enhanced fecundity in infertile women with moderate to severe endometriosis.

MATERIALS AND METHODS: We discuss a prospective study of women diagnosed with infertility due to endometriosis, presenting with different symptoms, evaluated with ultrasound pelvis and CA-125 and managed by operative laparoscopy.

RESULTS: Of the 13 women who presented with endometriosis to our hospital 84% women reported symptomatic improvement in terms of reduced pain following laparoscopic surgery. Out of 8 women who presented with infertility, 3 patients (37.5%) reported spontaneous conception following operative laparoscopy with an EFI score >5 (moderate endometriosis). Post operatively 6 (46%) of the 13 women were started on Tab Dienogest 2mg OD for 3 months and all reported symptomatic improvement with reduced pain and more than 1 month amenorrhoea or minimal spotting per vagina. IVF had been advised for 4 of the 8 patients with infertility with severe endometriosis with EFI score </=5. However successful pregnancy has not yet been reported till date.

The endometriosis fertility index (EFI) has a predictive value for pregnancy after surgery. EFI can better predict women's fecundity in endometriosis-associated infertile women with treatment of laparoscopy. On follow up of these patients there was marked improvement in terms of quality of life and health. There was also improvement in fertility following treatment.

CONCLUSION: As a gynaecologist it is essential to suspect and detect endometriosis in all reproductive aged women presenting with pelvic pain, infertility and assess and follow up affected women for endometriosis. There is definite scope for improvement in fertility in women with endometriosis following treatment by operative laparoscopy.

KEYWORDS

INTRODUCTION

Endometriosis is an enigmatic disease, despite a long history of research into its basic science and clinical aspects.[1] Endometriosis affects an estimated 1 in 10 women during their reproductive years which are approximately 176 million women in the world. Endometriosis is one of the top three causes of female infertility. While it is one of the most treatable, it remains the least treated. Up to 30% - 50% of women with endometriosis may experience infertility. Unless disease is visible in the vagina or elsewhere, laparoscopy is the standard technique for visual inspection of the pelvis and establishment of a definitive diagnosis.

AIMS AND OBJECTIVES

1. To predict pregnancy rate following surgical staging of endometriosis.
2. To determine whether laparoscopic surgery enhanced fecundity in infertile women with moderate to severe endometriosis.

STUDY DESIGN

A prospective study of all women of reproductive age group presenting with infertility and other symptoms of endometriosis such as dysmenorrhea, dyspareunia, or chronic pelvic pain from March 2018 to August 2018 were included in the study.

Ultrasound of pelvis and CA-125 levels were used for evaluation.
All patients were subjected to laparoscopy.

Surgical staging of endometriosis according to revised American Fertility Society scoring system (rAFS) was done and endometriosis fertility index (EFI) was calculated for all patients.

RESULTS

A total of 13 cases of endometriosis (ovarian/pelvic) were admitted in our hospital from March 2018 to August 2018.

8 out of the 13 patients (61.5%) presented with chief complaints of infertility, 3 patients (23.1%) had chronic pelvic pain and 2 patients (15.3%) presented with dysmenorrhoea as their chief complaint.

Most women who presented with infertility had primary infertility (75%). Majority of the women were between age group of 19-27 years (50%).

All 8 women gave history of pelvic pain (100%) even if not the main complaint.

2 women (25%) gave previous history of endometriosis and underwent surgery for the same.

CA- 125 levels was found elevated (>35U/ml) in 4 cases (50%).
Endometriotic cyst in majority of the cases (62.5%) measured between 5-8cm.

Table 1. Endometriosis And Infertility Patient Characteristics

		Number	%
Age (years)	</=18	0	-
	19-22	3	37.5%
	23-27	3	37.5%
	28-32	2	25%
	>32	0	-
BMI (kg/m^2)	<19	2	25%
	19–24	3	37.5%
	25–30	2	25%
	>30	1	12.5%
Infertility	Primary	6	75%
	Secondary	2	25%
Pain		8	100%
Dysmenorrhea		4	50%
Recurrence of previous endometrioma		2	25%
Previous laparoscopic surgery of ovarian endometrioma		2	25%
CA-125 (U/ml)	(>35)	4	50%
Cyst size (cm)	2-4	2	25%
	5-8	5	62.5%
	>8	1	12.5%

Table 2. Surgical staging of patients with endometriosis and infertility

Stage 1 (minimal) – 0 cases	Stage 2 (mild)- 1 case
Stage 3 (moderate)- 2 cases	Stage 4 (severe)- 5 cases

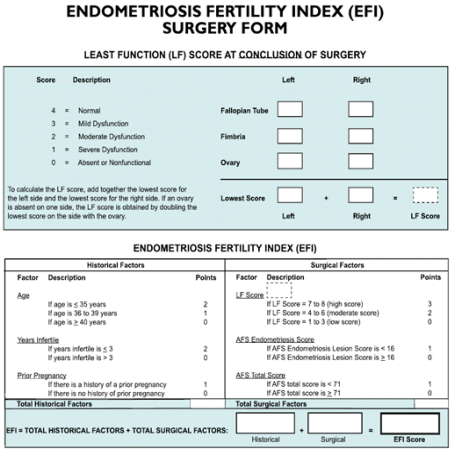

Figure 1. Endometriosis Fertility Index surgery form

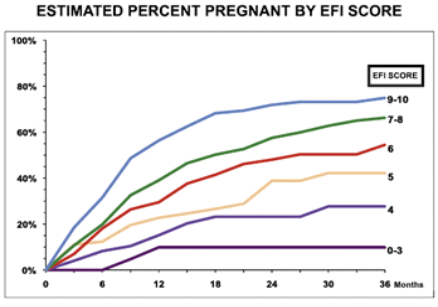

Figure 2. EFI score and estimated pregnancy rates

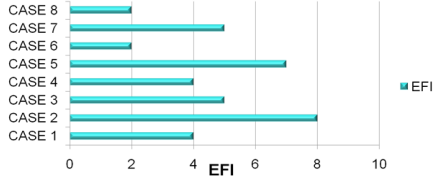

Figure 3. Endometriosis Fertility Index of study patients

The EFI score ranges from 0–10, with 0 representing the poorest prognosis and 10 the best prognosis.

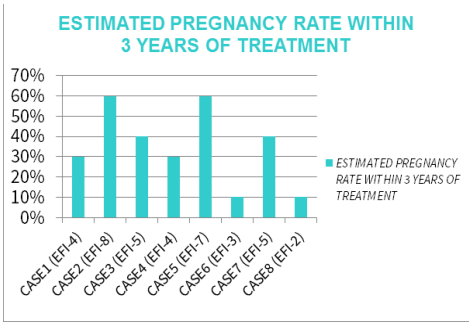

Figure 4. The estimated pregnancy rate within 3 years following treatment

DISCUSSION

The relationship between endometriosis and infertility has been debated for many years. In normal couples, fecundity is in the range of 0.15 to 0.20 per month and decreases with age. Women with endometriosis tend to have a lower monthly fecundity of about 0.02–0.1 per month. In addition, endometriosis is associated with a lower live birth rate.Infertile women are 6 to 8 times more likely to have endometriosis than fertile women.

Despite extensive research, no agreement has been reached and several mechanisms have been proposed to explain the association between endometriosis and infertility. These mechanisms include distorted pelvic anatomy, endocrine and ovulatory abnormalities, altered peritoneal function, and altered hormonal and cell-mediated functions in the endometrium.

A study by Pranay R Shah et al.(2013) evaluated 41 women with endometriosis. 41% women were found to have stage III/IV endometriosis. All were subjected to laparoscopic procedures. 58.5 % patients had full resolution of symptoms and no postoperative medical therapy was required. 41.4% i.e., 17 patients were put on aromatase inhibitor with OC pill therapy for 6-9 months postoperatively. These were patients in younger age group who did not want treatment for fertility at present. Of the total 9 patients with infertility, 5 conceived (55.5%). Of these 40% had a spontaneous conception and 60% had to undergo an ART procedure.

A study by Fusch S et al.(2007) evaluated fertility outcome after laparoscopic management of endometriosis in 64 women. The rate of pregnant women depended on stage of endometriosis (89% for stages I-II, and 56% for stages III-IV). Sixty percent pregnancies were spontaneous within a 5 months post-surgical time to pregnancy average. When pregnancies were obtained with assisted reproductive techniques, the median post-surgical time to pregnancy was 12 months.

Restoration of disrupted pelvic anatomy is the main-stay of surgical treatment of endometriosis-associated infertility and involves the destruction of endometriotic deposits, removal of endometriomas, and adhesiolysis. Laparotomy and laparoscopy are efficacious routes of access for surgery, but laparoscopy has shorter hospitalization, recovery, and return-to-work times, fewer adhesions, and greater patient comfort. Surgery is usually the treatment of choice to restore disrupted pelvic anatomy and remove endometriomas in advanced stage.

Of the 13 women who presented with endometriosis to our hospital 84% women reported symptomatic improvement in terms of reduced pain following laparoscopic surgery.

Out of 8 women who presented with infertility, 3 patients (37.5%) reported spontaneous conception following operative laparoscopy with an EFI score >5 (moderate endometriosis).

Post operatively 6 (46%) of the 13 women were started on Tab Dienogest 2mg OD for 3 months and all reported symptomatic improvement with reduced pain and more than 1 month amenorrhoea or minimal spotting per vagina.

IVF had been advised for 4 of the 8 patients with infertility with severe endometriosis with EFI score </=5. However successful pregnancy has not yet been reported till date.

The endometriosis fertility index (EFI) has a predictive value for pregnancy after surgery. EFI can better predict women's fecundity in endometriosis-associated infertile women with treatment of laparoscopy.

CONCLUSION

As a gynecologist it is essential to suspect and detect endometriosis in all reproductive aged women presenting with pelvic pain, infertility and assess and follow up affected women for endometriosis. There is definite scope for improvement in fertility in women with endometriosis following treatment by operative laparoscopy. EFI is a good predictor of fecundity in women with endometriosis undergoing laparoscopic surgery.

REFERENCES

1. Endometriosis: Pathogenesis and Treatment, Tasuku Harada, Springer, 2014; ISBN 4431544216, 9784431544210.
2. Dunselman GA, Vermeulen N, Becker C, Calhaz-Jorge C, D'Hooghe T, De Bie B, Heikinheimo O, Horne AW, Kiesel L, Nap A, Prentice A, Saridogan E, Soriano D, Nelen W. ESHRE guideline: management of women with endometriosis. Hum Reprod. 2014 Mar;29(3):400-12. doi: 10.1093/humrep/det457.
3. Jacobson TZ, Duffy JM, Barlow D, Farquhar C, Koninckx PR, Olive D: Laparoscopic surgery for subfertility associated with endometriosis. Cochrane Database Syst Rev 2010;20:CD001398.
4. Adamson GD, Pasta DJ: Endometriosis fertility index: the new, validated endometriosis staging system. Fertil Steril 2010;94:1609-1615.
5. Tomassetti C, Geysenbergh B, Meuleman C, Timmerman D, Fieuws S, D'Hooghe T:

External validation of the endometriosis fertility index (EFI) staging system for predicting non-ART pregnancy after endometriosis surgery. Hum Reprod 2013;28:1280-1288.
6. Nakagawa K, Ohgi S, Kojima R, Sugawara K, Ito M, Horikawa T, Irahara M, Saito H: Impact of laparoscopic cystectomy on fecundity of infertility patients with ovarian endometrioma. J Obstet Gynecol Res 2007;33:671-676.