ejpmr, 2019,6(4), 216-219

SJIF Impact Factor 4.897

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Review Article

ISSN 2394-3211

EJPMR

THE PREVALENCE OF ENDOMETRIOSIS AND ITS CLINICAL CORRELATION IN PATIENTS WITH INFERTILITY

[1*]Dr. Prateek Suren, [2]Dr. Swati Garg and [3]Dr. Arpita Jain

[1]3rd year PG Resident, [2]Head of Department, [3]2nd Year PG Resident
Department of Obstetrics and Gynecology, Mahatma Gandhi Medical College and Hospital, Jaipur.

***Corresponding Author: Dr. Prateek Suren**

3rd year PG Resident, Department of Obstetrics and Gynecology, Mahatma Gandhi Medical College and Hospital, Jaipur.

Article Received on 31/01/2019 **Article Revised on 20/02/2019** **Article Accepted on 12/03/2019**

ABSTRACT

Background: Endometriosis is a medical enigma which appears to affect every aspect of a women's reproductive health. The study aims to find out the prevalence and its staging and clinical correlation in patients with infertility. **Material and methods:** It is a retrospective study conducted at department of mahatma gandhi medical college and hospital, jaipur from july 2016 to june 2018 amongst women with complains of infertility. A total of 200 patients were studied who underwent diagnostic hysterolaproscopy. All of these patients and their findings were analyzed. **Results:** Out of 200 patients 16% were diagnosed as a case of endometriosis. 46.8% patients with endometriosis had dysmenorrhoea, 40% had chronic pelvic pain and 18.75% had deep dyspareunia. Out of this 68.75% had primary infertility and 31.25% had secondary infertility. The stage distribution of endometriosis was 34.38%, 18.75%, 34.38% and 12.5 % for stage I, II, III, IV respectively. There was no statistical significance between stage of disease and symptoms. In our study 100% biopsies were positive for ovarian endometriomas. 30.4 % from POD and 13.04% from the adhesions making overall diagnostic accuracy to be 41.07%. **Conclusion: -** Endometriosis with infertility is not uncommon. Though majority of these women are asymptomatic, many attend the clinic with subsequent complaints of infertility, dysmenorrhoea, dyspareunia and chronic pelvic pain which is statistically significant. So, we would like to recommend the evaluation and treatment of a patient reporting in gynecological OPD with the above-mentioned complaints with high suspicion for endometriosis.

KEYWORDS: Endometriosis, Hysterolaproscopy, Infertility, Dyspareunia, Chronic pelvic pain.

INTRODUCTION

Endometriosis is defined as chronic and recurrent disease characterized by presence and proliferation of endometrial glands and stroma outside the uterine cavity. The prevalence of endometriosis in reproductive women is around 10-20% and endometriosis is the cause of infertility in 30-70%in patients coming for infertility investigations.[1,2] The aetiology of endometriosis is complex and multifactorial.[3]

Most common anatomic sites in decreasing order of frequency are ovaries, anterior and posterior cul de sac, posterior broad ligament, uterosacral ligament, uterus, fallopian tubes, sigmoid colon and appendix and round Ligament Risk factors include Infertility, High consumption of trans unsaturated fat, Nulliparity, Early menarche / late menopause, H/O endometriosis in 1st degree relatives Shorter menstrual cycle, Heavy Menstrual bleeding, Prior medical /surgical therapy for endometriosis, Obstruction to menstrual flow (Mullerian anomalies), Lower BMI, Exposure to diethyl stilbestrol in utero, Height > 68 inches.

The pathology of endometriosis has several theories namely Sampson's spill theory, Meyer's metaplastic theory, Halbans Lymphovascular theory and Immunological theory. Among which, Immunological theory is gained more importance than other theory.[4-9] This disease leads to lot of economical burden due to medical and surgical management.[10] There is also economical loss due to loss of working hours. Women also face the social problem of infertility and this causes depression which deeply affects the quality of life.[11,12]

Most common symptoms include dysmenorrhoea, dyspareunia, pelvic pain and infertility. Some patients remain asymptomatic.[13] Conception rate also depends upon the severity of the lesion and it drops drastically in severe lesions up to 25-48 % of women with infertility diagnosed with endometriosis.[14,15]

Laparoscopy is the mainstay in the diagnosis as it provides a visual proof of the minute endometriosis lesions and helps in staging of the disease. Laparoscopic surgery is widely used as a diagnostic and therapeutic tool as it has quicker recovery time, shorter hospital stay,

reduced physical and psychological stress, unlike laparotomy.

AIMS AND OBJECTIVES

- Determine the prevalence of endometriosis in cases of infertility.
- Staging of endometriosis based on laparoscopic finding and their clinical correlation.

MATERIAL AND METHODS

Study period: July 2016- June 2018.

Study area: Mahatma gandhi medical college and hospital.

Study type: Retrospective observational study.

Study group: Included 200 women attending gynaecology OPD of department of obstetrics and gynaecology, Mahatma gandhi hospital with the presenting complaint of primary or secondary infertility.

Inclusion criterion: History of primary or secondary infertility.

Exclusion criterion: Patients with medical conditions which are contraindication for laparoscopic procedure and patients already diagnosed with endometriosis or treated for same in past.

OBSERVATIONS

Distribution of patient according to type of infertility

Infertility	Number	Percentage
Primary	144	72.00
Secondary	56	28.00
Total	200	100.00

Distribution according to laparoscopic diagnosis

Laproscopic diagnosis (N=200)	Number	Percentage (%)
Fibroid	10	5.00
Unexplained	60	30.00
Endometriosis	32	16.00
PID	62	31.00
PCO	25	12.50
Genital Koch	14	7.00
Congenital anomaly	3	1.50

Endometriosis and pain symptoms

Symptoms	Number	Percentage
Dysmenorrhoea	15	46.875
CPP	13	40.625
Dyspareunia	4	12.50

Site of endometriosis on laproscopy

Site of endometriosis	No.	%
Uterus	14	43.75
Ovaries	19	59.38
Tubes	2	6.25
POD	21	65.63
USL	7	21.88

Site of endometriosis and symptoms

Site	CPP		Dysmenorrhoea		Dyspareunia		Total
	No.	%	No.	%	No.	%	
Uterus	3	14.28	5	17.85	1	9.09	9
Ovaries	8	38.09	10	35.71	6	54.54	24
Tubes	1	4.76	0	0.00	0	0.00	1
POD	7	33.33	10	35.71	3	27.27	20
USL	2	9.52	3	10.71	1	9.09	6

According to stage of endometriosis

Stage	No.	%
I	11	34.48
II	6	18.75
III	11	34.38
IV	4	12.5
Total	**32**	**100**

Stage of disease and pain symptom

Stage	CPP		Dysmenorrhea		Dyspareunia	
	No.	%	No.	%	No.	%
I	2	16.67	4	26.67	0	0
II	2	16.67	2	13.33	1	16.67
III	5	41.67	7	46.67	4	66.67
IV	3	25.0	2	13.33	1	16.67
Total	**12**	**100**	**15**	**100**	**6**	**100**
'p' value	**0.285**		**0.730**		**0.239**	

Site of endometriosis and stage of endometriosis

Site	Stage									
	I		II		III		IV		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Uterus	8	72.72	4	66.67	2	18.18	0	0.00	14	43.75
Ovaries	1	9.09	3	50	11	100	4	100	19	59.38
Tubes	0	0.00	2	33.33	0	0.00	0	0.00	2	6.25
POD	6	54.54	3	50	8	72.72	4	100	21	65.63
USL	2	18.18	4	66.67	1	9.09	0	0.00	7	21.88
Total	**11**	**100**	**6**	**100**	**11**	**100**	**4**	**100**	**32**	**100**

Endometriosis and site of adhesions

Site of adhesions	Endometriosis (N=32)	
	No.	%
Peritubal	14	43.75
Periovarian	24	75.00
POD	18	56.25
Periuterine	9	28.13
Gut	7	21.88

Endometriosis and result of biopsies

Site of biopsy	Positive		Negative		Total
	No.	%	No.	%	
Right ovarian	3	13.04	0	0.00	3
Left ovarian	8	34.78	0	0.00	8
B/L ovarian	2	8.6	0	0.00	2
Patch on POD	7	30.4	9	27.27	16
Adhesions	3	13.04	24	72.73	27
Total	**23**	**100.00**	**33**	**100.00**	**56**

SUMMARY

Following observation were made in our study

1. 72% patients had primary infertility, 28% had secondary infertility.
2. The prevalence of endometriosis among the infertile women was found to be 16%, 32 patients
3. 46.87% patients with endometriosis had dysmenorrhoea, 40.6% patients had chronic pelvic pain, 12.5% patients had deep dyspareunia.
4. In our study majority of patients with endometriosis had disease in pouch of douglas 65.6%, followed by ovaries 59.4%.
5. Majority of patients with pain syndrome were likely to have diseases in ovaries and POD.
6. In our study most of the patients had stage I and stage III disease followed by stage II and stage IV.
7. Most of the patients with pain symptoms were of stage III disease but other stages also had pain symptoms. There was no significant association seen between clinical symptoms and stage of endometriosis.
8. In our study in stage I and II disease mostly involved uterus and POD whereas in stage III and stage IV ovaries was almost always involved.
9. In our study 87.5% patients with endometriosis had adhesions, most common site being paraovarian.
10. In our study 100 percent biopsies were positive for ovarian endometriomos. 30.4 % biopsies were positive from POD. 13.04% biopsies were positive from adhesions. Overall diagnostic accuracy is 41.07%.

CONCLUSION

• Endometriosis with infertility is not uncommon. Though majority of these women are asymptomatic, many attend the clinic with subsequent complaints of infertility, dysmenorrhoea, dyspareunia and chronic pelvic pain which is statistically significant. So, we would like to recommend the evaluation and treatment of a patient reporting in gynaecological OPD with the above-mentioned complaints with high suspicion for endometriosis.

REFERENCES

1. Eskenazi B, Warner ML. Epidemiology of endometriosis. Obstet Gynecol Clin North Am, 1997; 24: 235-58.
2. Donnez J, Wyns C, Nisolle M. Does ovarian surgery for endometriomas impair the ovarian response to gonadotropin? Fertil Steril, 2001; 76: 662-5. 3.
3. Burney RO, Giudice L. Pathogenesis and pathophysiology of endometriosis. Fertil Steril, 2012; 98: 511-9.
4. Vinatier D, Orazi G, Cosson M, Dofour P. Theories of endometriosis. Eur J Obstet Gynecol Reprod Biol, 2001; 96: 21-34.
5. Stefansson H, Geirsson RT, Steinthorsdottir V, Jonsson H, Manolescu A, Kong A, et al. Genetic factors contribute to the risk of developing endometriosis. Hum Reprod, 2002; 17: 555-9.
6. Hemmings R, Rivard M, Olive DL, Poliquin-Fleury J, Gagné D, Hugo P, et al. Evaluation of risk factors associated with endometriosis. Fertil Steril, 2004; 81: 1513-21.
7. Kashima K, Ishimaru T, Okamura H, Suginami H, Ikuma K, Muramaki T, et al. Familial risk among Japanese patients with endometriosis. Int J Gynecol Obstet, 2004; 84: 61-4.
8. Heilier JF, Donnez J, Nackers F, Rousseau R, Verougstraete V, Rosenkranz K, et al. Environmental and host-associated risk factors in endometriosis and deep endometriotic nodules: a matched case-control study. Environ Res, 2007; 103: 121-9.
9. Petta CA, Matos AM, Bahamondes L, Faúndes D. Current practice in the management of symptoms of

endometriosis: a survey of Brazilian gynecolo- gists. Rev Assoc Med Bras, 2007; 53: 525-9.
10. Gao X, Outley J, Botteman M, Spalding J, Simon JA, Pashos CL. Economic burden of endometriosis. Fertil Steril, 2006; 86: 1561-72.
11. Fernandez I, Reid C, Dziurawiec S. Living with endometriosis: the perspective of male partners. J Psychosom Res, 2006; 61: 433-8.
12. Jones GL, Kennedy SH, Jenkinson C. Health-related quality of life measurement in women with common benign gynecologic conditions: a systematic review. Am J Obstet Gynecol, 2002; 187: 501-11.
13. Vinatier D, Orazi G, Cosson M, Dofour P. Theories of endometriosis. Eur J Obstet Gynecol Reprod Biol, 2001; 96: 21-34.
14. Hornstein MD, Gleason RE, Orav J, Haas ST, Friedman AJ, Rein MS et al. The reproducibility of the revised American Fertility Society classification of endometriosis. FertilSteril, 1993; 59: 1015-21.
15. Mehmud G, Akhtar T, Sadia S. Endometriosis: frequency and correlation between symptomatology and disease stage. J Coll Physicians Surg Pak, 2007; 17: 199-202.