

## EVALUATION OF PREVALENCE OF ENDOMETRIOSIS IN WOMEN OF REPRODUCTIVE AGE, ITS LAPAROSCOPIC MANAGEMENT AND OUTCOME: AN INSTITUTIONAL BASED STUDY

Gupteswar Mishra<sup>1</sup>, Sambit Kumar Mohanty<sup>2</sup>, Prabir Kumar Biswal<sup>3</sup>

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Corresponding Author:  
Dr. Gupteswar Mishra,  
Email: drgupteswar.mishra@gmail.com

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<sup>1</sup>Assistant Professor, Department of Obstetrics and Gynecology, Hi-Tech Medical College & Hospital, Bhubaneswar, Odisha, India.

<sup>2</sup>Assistant Professor, Department of Surgery, Hi-Tech Medical College & Hospital, Bhubaneswar, Odisha, India.

<sup>3</sup>Junior Resident, Department of Obstetrics and Gynecology, Hi-Tech Medical College & Hospital, Bhubaneswar, Odisha, India.

### Abstract

**Background:** Endometriosis is a disease in which tissue similar to the lining of the uterus grows outside the uterus. It can cause severe pain in the pelvis and make it harder to get pregnant. This study was performed to assess prevalence of endometriosis in women of reproductive age, laparoscopic management and its outcome. **Materials & Methods:** This study was performed to assess prevalence of endometriosis in women of reproductive age, laparoscopic management and its outcome. Pelvic examination was done, and clinical findings of POD were noted. Diagnostic standard three-trocar laparoscopy was done. Disease staging was done using the Revised- American Fertility Society (R-AFS) classification score. In the operative laparoscopy removal of lesions was done. **Results:** In the present study 260 patients were included in the study out of 60 women had endometriosis. The prevalence of endometriosis in women found to be high 23.07%. The maximum number of patients with endometriosis belongs to stage 3 (30%). The higher prevalence of infertility (82.35%) was observed in stage 3 and 4 diseases (28 out of 34 cases). In maximum patients (45%), Bipolar cauterization, scissor excision of deep lesions with cauterization was done. Maximum patients conceived in stage 1. 31.25% patients conceived in stage 3 and 16.55% in stage 4. **Conclusion:** The present study concluded that the prevalence of endometriosis in women found to be 23.07%. The maximum number of patients with endometriosis belongs to stage 3 (30%). The higher prevalence of infertility was observed in stage 3 and 4 diseases. In maximum patients, Bipolar cauterization, scissor excision of deep lesions with cauterization was done. 31.25% patients conceived in stage 3 and 16.55% in stage 4.

## INTRODUCTION

Endometriosis is defined as a chronic and recurrent disease characterised by the presence and proliferation of endometrial glands and stroma outside the uterine cavity. It is responsible for varied and disabling symptoms and it also has an adverse impact on fertility.<sup>[1,2]</sup> It was described by Thomas Cullen.<sup>[3]</sup> Carl Rokitansky was the discoverer of endometriosis, while the term was coined by John A Sampson who also gave the famous Sampsons theory of retrograde menstruation to describe the pathogenesis of it.<sup>[4,5]</sup> Endometriosis affects 10–15% of all women of reproductive age<sup>[6]</sup> and 70% of

women with chronic pelvic pain.<sup>[7]</sup> The aetiology of endometriosis is complex and multifactorial.<sup>[8]</sup> The

most common symptoms of endometriosis are dysmenorrhoea, dyspareunia, pelvic pain and infertility.<sup>[9]</sup> The management of endometriosis requires a multidisciplinary approach with [i] surgical diagnosis and debulking of disease load, [ii] hormonal treatment to suppress and delay recurrence and progression of disease, [iii] pain management strategies best provided by a pain center clinic that develops individualized care plans and pelvic therapy. Symptomatic endometriosis is typically treated by surgical or medical treatment both equally effective.<sup>[10]</sup> This study was performed to assess

prevalence of endometriosis in women of reproductive age, laparoscopic management and its outcome.

## MATERIALS AND METHODS

This study was performed to assess prevalence of endometriosis in women of reproductive age, laparoscopic management and its outcome in Department of Obstetrics and Gynecology, Hi-Tech Medical College & Hospital, Bhubaneswar, Odisha, India. Before the commencement of the study ethical approval was taken from the Ethical Committee of the institute and informed consent was taken from the participants after explaining the study to them. The patients included in the study were in the age group 20 to 45 years with symptoms of dysmenorrhoea, dyspareunia, pelvic pain and infertility. Pelvic examination was done, and clinical findings of POD were noted. These cases were subjected for pelvic ultrasound (USG) to look for altered pelvic anatomy and ovarian endometriomas. Diagnostic standard three-trocar laparoscopy was done under general anaesthesia, with a 10mm operating laparoscope inserted through an umbilical port and two 5mm sheaths inserted in the lower abdominal quadrants lateral to the inferior epigastric artery. Disease staging was done using the Revised- American Fertility Society (R-AFS) classification score. Scores

1 to 5 were classified as stage 1 (minimal), scores from 6 to 15 were stage 2 (mild), scores 16 to 40 with mild adhesions were classified as stage 3 (moderate) and scores above 40 classified as stage 4 (severe). In the operative laparoscopy removal of lesions was done.

## RESULTS

In the present study 260 patients were included in the study out of 60 women had endometriosis. The prevalence of endometriosis in women found to be high 23.07%.

The maximum number of patients with endometriosis belongs to stage 3 (30%). The higher prevalence of infertility (82.35%) was observed in stage 3 and 4 diseases (28 out of 34 cases).

In maximum patients (45%), Bipolar cauterization, scissor excision of deep lesions with cauterization was done.

Maximum patients conceived in stage 1. 31.25% patients conceived in stage 3 and 16.55% in stage 4.

**Table 1: Distribution of patients according to (R-AFS) classification and staging.**

Stage of the disease	No. of patients	Prevalence of endometriosis in various stages (%)	No. of patients with infertility
Stage 1	16	26.66%	2
Stage 2	14	23.33%	4
Stage 3	18	30%	16
Stage 4	12	20%	12

**Table 2: The methods of laparoscopic procedures done.**

Surgical procedure	N(%)
Cystectomy with/without adhesiolysis	14(23.33%)
Chocolate cyst drainage with fulguration	6(10%)
Adhesiolysis and remodeling of anatomy	13(21.66%)
Bipolar cauterization, scissor excision of deep lesions with cauterization	27(45%)

**Table 3: Table showing the success rate of pregnancy after laparoscopic surgery.**

Stage of the disease	No. of patients with infertility	Pregnant (%)
Stage 1	2	2(100%)
Stage 2	4	3(75%)
Stage 3	16	5(31.25%)
Stage 4	12	2(16.66%)

## DISCUSSION

Laparoscopy is considered its gold-standard diagnostic tool as it provides direct visualization of endometriotic lesions. Their laparoscopic features are unique and can easily be characterized into early or late lesions: early lesions are small, flat patches, flecks, blebs or even polyps of red, brown colour, advanced lesions are black puckered, while healed are white fibrotic lesions which can be present on the pelvic surfaces, or can be on the ovaries, uterus or other pelvic organs. Ovaries are the most common organs affected by endometriosis, and it can be

superficial or deep involvement, which is important from grading point of view also. Also, a strong correlation has been observed between depth of lesion > 10 mm and chronic pelvic pain.<sup>[11]</sup>

In the present study 260 patients were included in the study out of 60 women had endometriosis. The prevalence of endometriosis in women found to be high 23.07%. The maximum number of patients with endometriosis belongs to stage 3 (30%). The higher prevalence of infertility (82.35%) was observed in stage 3 and 4 diseases (28 out of 34 cases). In maximum patients (45%), Bipolar cauterization, scissor excision of deep lesions with cauterization

was done. Maximum patients conceived in stage 1. 31.25% patients conceived in stage 3 and 16.55% in stage 4.

In one of the studies, it has been shown that approximately 47% of women with infertility have endometriosis.<sup>[12]</sup>

Valson H et al. in 2016 reported a very high prevalence of endometriosis among infertile women of about 73.33 %<sup>[13]</sup>, while Mishra VV et al. in 2014 reported it to be 48.38 %.<sup>[14]</sup>

Mishra VV et al (2017), study the prevalence, clinical and laparoscopic characteristics of endometriosis in infertile women. Out of 502 women, 276 (54.98 %) showed the presence of endometriosis, while 226 (45.01 %) did not have endometriosis. One hundred and eighty-three (66.3 %) women had stage I endometriosis, 49 (17.77 %) had stage II, 23 (8.33 %) had stage III and 21 (7.6 %) had stage IV endometriosis.<sup>[15]</sup>

Valson H et al (2016) did a study to find out the prevalence of endometriosis in the female population in the reproductive age and to study the outcome after laparoscopic surgery in infertile women with endometriosis. Out of the above 200 patients, 25% (50 cases) were diagnosed as cases of endometriosis. Out of which, 50% (25 cases) patients had moderate to severe endometriosis. The prevalence of infertility was 22.5% (45 cases out of 200). Endometriosis was the cause of infertility in 33 patients. 25 patients had moderate to severe endometriosis and remaining 8 cases minimal to mild disease. The prevalence of endometriosis was 73.33% in infertile women. The fertility rate after surgery, during the 2 years follow up is 36.36% (12 cases conceived out of 33 cases).<sup>[13]</sup>

## CONCLUSION

The present study concluded that the prevalence of endometriosis in women found to be 23.07%. The maximum number of patients with endometriosis belongs to stage 3 (30%). The higher prevalence of infertility was observed in stage 3 and 4 diseases. In maximum patients, Bipolar cauterization, scissor excision of deep lesions with cauterization was done. 31.25% patients conceived in stage 3 and 16.55% in stage 4.

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