Vietnam Journal of Community Medicine, Vol. 67, English version No. 1, 2026, 194-197

OUTCOMES OF SURGICAL TREATMENT FOR PERINEAL ENDOMETRIOSIS AT THE NATIONAL HOSPITAL OF OBSTETRICS AND GYNECOLOGY

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Received: 01/04/2026
Revised: 01/05/2026; Accepted: 26/05/2026

ABSTRACT

Objective: To evaluate the outcomes of surgical treatment for perineal endometriosis (PE) at the National Hospital of Obstetrics and Gynecology.

Methods: A descriptive study was conducted, collecting data from the medical records of patients diagnosed with PE who underwent surgery at the National Hospital of Obstetrics and Gynecology between January 2018 and August 2022. Inclusion criteria comprised patients diagnosed with PE who had undergone surgery, had histopathological confirmation of endometriosis, and whose records contained sufficient information. Patients with systemic diseases and/or histopathological results other than endometriosis were excluded. Pain severity was assessed using the Numerical Rating Scale (NRS, 0–10). Quality of life was evaluated using the SF-36 and classified as poor (0–25), moderate (26–75), or good (76–100).

Results: A total of 48 patients were included in the analysis; the mean age was 31 ± 7.18 years (range, 20–43). The mean BMI was 19.74 ± 2.14 (range, 15.3–26.1), with the majority having a BMI of 18.5 to <23 (77.1%). Postoperatively, wound infection occurred in 3/48 cases, and no major surgical complications were recorded. Before surgery, 43/48 patients had NRS scores ≥4 (89.6%); at three months postoperatively, all 48 patients had NRS scores of 1–3 (100%). During follow-up based on records, 2/48 patients experienced recurrence at the perineum. Regarding quality of life (n=26), the proportion of patients with a "good" SF-36 rating increased from 11.6% before treatment to 84.6% at three months and 92.3% at ≥6 months postoperatively.

Conclusion: Surgical treatment for perineal endometriosis demonstrated clear effectiveness in pain reduction and improvement of quality of life, with a low rate of wound infection and a small recurrence rate.

Keywords: Endometriosis; perineum; surgery; pelvic pain; NRS; SF-36.

1. INTRODUCTION

Endometriosis is a common gynecological disease, estimated to affect approximately 5–10% of women of reproductive age [1]. The condition is characterized by the presence of endometrial gland and stromal tissue outside the uterine cavity, causing chronic inflammation that responds cyclically to menstruation and is influenced by sex hormones. Endometriosis presents with a wide range of clinical manifestations, most commonly pelvic pain, menstrual-related pain, and infertility, thereby having a significant impact on patients' quality of life and work productivity [2].

Anatomically, endometriosis can occur simultaneously at multiple sites in the same patient, including ovarian endometriosis, peritoneal endometriosis, adenomyosis, abdominal scar endometriosis, and extrapelvic locations. Extrapelvic endometriosis has been reported with a certain incidence. Among extrapelvic forms, perineal endometriosis (PE) is considered rare, accounting for a very small proportion of all endometriosis cases [3]. However, this form often causes well-localized pain, particularly cyclical pain in the perineal region, typically at the site of episiotomy scars or following perineal procedures after vaginal delivery [4]. Because the symptoms involve a sensitive area, many patients tend to delay medical consultation, leading to prolonged pain, restricted sexual activity, and adverse effects on mental health.

Clinically, PE may present as a painful, swollen mass in the perineum that enlarges with menstruation; it can sometimes be confused with granuloma, dermoid cyst, abscess, fistula, or anorectal disorders. Therefore, early diagnosis based on the cyclical nature of pain and careful examination of the perineum is of great importance. Surgical excision of the lesion is regarded as the mainstay of treatment, aimed at removing ectopic tissue and improving symptoms. However, data on the outcomes of surgical treatment for PE in Vietnam remain limited. Based on clinical practice, we conducted this study to evaluate the outcomes of surgical treatment for perineal endometriosis at the National Hospital of Obstetrics and Gynecology.

2. RESEARCH METHODS

2.1. Study subjects: Patients diagnosed with perineal endometriosis who underwent surgery at the hospital during the study period.

- ***Inclusion criteria:*** (1) diagnosis of perineal endometriosis; (2) surgery performed at the National Hospital of Obstetrics and Gynecology with histopathological confirmation of endometriosis; (3) medical records containing sufficient information for the study.

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- Exclusion criteria: (1) patients with systemic diseases; (2) histopathological results other than endometriosis.

2.2. Study site and period: The study was conducted from January 2018 to August 2022 at the National Hospital of Obstetrics and Gynecology.

2.3. Study design: Prospective descriptive study.

2.4. Sample size and sampling method: Convenience, non-probability sampling. A total of 48 patients meeting the inclusion criteria were included in the analysis.

2.5. Data collection method: Based on medical records and a data collection form developed in line with the study objectives.

2.6. Study variables

The information recorded included age, place of residence, height, weight, BMI, obstetric and gynecological characteristics, pain symptoms (perineal pain, dyspareunia, menstrual-related pain, etc.), ultrasound findings, postoperative complications, and recurrence on follow-up. Several measurement scales were used:

+ Pain assessed by NRS: a 0–10 scale (0: no pain; 10: maximum pain). In this study, NRS scores were used to classify pain severity into 1–3 (no pain/mild pain), 4–6 (moderate pain), and 7–10 (severe/very severe pain).

+ Quality of life assessed by SF-36: a tool consisting of 36 items evaluating eight health domains; total scores were converted to a 0–100 scale. Quality of life was classified as poor (0–25), moderate (26–75), or good (76–100).

Assessment of surgical site infection: Surgical site infection was defined as occurring within 30 days after surgery, at the skin or subcutaneous tissue of the surgical wound, accompanied by at least one sign: discharge of pus/fluid from the superficial wound and/or signs of pain, swelling, warmth, or redness.

2.7. Data processing and analysis: Data were coded and analyzed using SPSS 17.0. Categorical variables were presented as frequencies and percentages; quantitative variables were presented as mean ± standard deviation and min–max. Comparisons of two categorical variables were performed using the chi -square test. The level of statistical significance was set at $p < 0.05$.

2.8. Research ethics: Patient information was coded and names were not entered during analysis; data were used solely for research purposes. The study was approved by the Ethics Committees of the National Hospital of Obstetrics and Gynecology and Hanoi Medical University.

3. RESULTS

From January 2018 to August 2022, 48 patients underwent surgery for perineal endometriosis and met the inclusion criteria for the study.

Table 1. Characteristics of the study participants (n = 48)

Characteristic		n	%
Age group (years)	≤ 25	5	10.4
	26–30	13	27.1
	31–35	17	35.4
	36–40	11	22.9
	> 40	2	4.2
Age group (years)	Mean age	31 ± 7	min–max: 20–43
BMI (kg/m^2)	< 18.5	4	8.4
	18.5–<23	37	77.1
	≥ 23	7	14.5
Mode of delivery before diagnosis	Vaginal delivery	46	95.8
	Cesarean section	2	4.2
Number of children	None	0	0
	1 child	8	16.7
	2 children	35	72.9
	≥ 3 children	5	10.4
Episiotomy or perineal tear during vaginal delivery	Yes	48	100
	No	0	0
Total		48	100

Regarding age, the 31–35 year group accounted for the highest proportion (35.4%). The mean age was 31 ± 7.18 years, with a minimum of 20 and a maximum of 43 (Table 1). With respect to body habitus, the mean BMI was 19.74 ± 2.14 (range, 15.3–26.1). The BMI 18.5–<23 group represented the majority (77.1%) (Table 1).

Table 2. Postoperative surgical complications (n = 48)

Postoperative complication	n	%
Postoperative wound infection	3	6.25
Rectal/sphincter injury, rectovaginal fistula, bleeding	0	0
Postoperative recurrence	2	4.17
No surgical complications	45	93.75
Total	48	100

Regarding postoperative complications, wound infection was recorded in 3 of 48 cases. No major surgical complications such as rectal/sphincter injury, rectovaginal fistula, or bleeding were documented (Table 2). With respect to recurrence, 2 of 48 patients had recurrence of perineal endometriosis after surgery, corresponding to 4.17%.

Table 3. Changes in pain severity (NRS) before surgery and at 3 months after surgery (n = 48)

NRS score	Pain severity	Before surgery n (%)	3 months after surgery n (%)	p
1–3	No pain or mild pain	5 (10.4)	48 (100)	< 0.001
4–6	Moderate pain	27 (56.2)	0 (0)	
7–10	Severe/very severe pain	16 (33.4)	0 (0)	
Total		48 (100)	48 (100)	

Regarding pain reduction, before surgery 43 of 48 patients (89.6%) had an NRS score of ≥4 (moderate to severe pain). Three months after surgery, all 48 patients (100%) had an NRS score of 1–3 (no pain or mild pain) (Table 3).

Table 4. Changes in quality of life (SF-36) before treatment and after surgery (n = 26 with available SF-36 data)

SF-36 score	Quality of life	Before treat-ment n (%)	3 months after surgery n (%)	≥ 6 months after surgery n (%)	p
0–25	Poor	18 (69.2)	0 (0)	0 (0)	< 0.001
26–75	Moderate	5 (19.2)	4 (15.4)	2 (7.7)	
76–100	Good	3 (11.6)	22 (84.6)	24 (92.3)	
Total		26 (100)	26 (100)	26 (100)	

Regarding quality of life, only 26 patients had SF-36 data available in the records. Before treatment, the proportion with "poor" quality of life was 69.2% and "good" quality of life was only 11.6%. Three months after surgery, the proportion of "good" quality of life increased to 84.6%; at ≥6 months after surgery, the proportion of "good" quality of life reached 92.3%.

4. DISCUSSION

Perineal endometriosis is a rare form of disease but may impose a substantial symptom burden due to localized pain, often cyclical with menstruation, accompanied by adverse effects on sexual activity and mental health [3], [4]. In this study, clinical characteristics were indirectly reflected through the preoperative NRS distribution: most patients experienced moderate to severe pain (89.6% had NRS ≥4). Three months after surgery, all patients reached the no-pain/mild-pain category (NRS 1–3). Although the study is descriptive and lacks a control group, the before–after results suggest a clear trend of symptomatic response after surgical intervention [5]. This is consistent with the prevailing therapeutic view that surgical excision of the lesion is the mainstay for pain control in perineal endometriosis, particularly when the lesion is localized and amenable to complete resection [3].

Quality of life is an important outcome in chronic conditions such as endometriosis [6]. Using the SF-36 (n = 26), the proportion of patients with "good" quality of life increased from 11.6% before treatment to 84.6% at three months and 92.3% at ≥6 months after surgery. This level of improvement has clear practical significance: it reflects not only relief of acute pain but also improvement in physical function, social activity, and mental health —domains commonly affected in patients with endometriosis [5]. However, because SF-36 data were available for only 26 of 48 patients, caution is warranted when generalizing the results to the entire sample; missing data may introduce selection bias, as patients who returned for follow-up or completed SF-36 assessments may differ in symptom severity or follow-up adherence.

Regarding safety, the rate of wound infection was 6.25% (95% CI: 1.3–17.2%). The relatively wide confidence interval, due to the moderate sample size, indicates a degree of uncertainty in estimating the complication rate. Nevertheless, no major surgical complications (rectal/sphincter injury, rectovaginal fistula, bleeding) were recorded. In the literature, severe complications are usually emphasized in the context of deep infiltrating lesions or sphincter/anal canal involvement, where surgery often requires multidisciplinary collaboration and appropriate reconstructive techniques. The absence of severe complications in our study may reflect the lesion characteristics in this patient cohort or the clinical triage process.

Recurrence is a key concern in the treatment of perineal endometriosis. Our study recorded 2 cases of recurrence (4.17%; 95% CI: 0.5–14.3%), occurring 2 and 3 years after surgery. Regarding recurrence rates, previous studies have reported a moderate risk of recurrence in perineal endometriosis. Specifically, Maillard et al. (2020) reported a recurrence rate of 10.2% after a mean follow-up of 10 months [6]. Meanwhile, Matalliotaki et al. (2020) reported higher recurrence rates of approximately 15.4% overall and 14.2% specifically for perineal endometriosis [7]. Thus, recurrence rates in the literature range from approximately 10% to 15%. In comparison, our recurrence rate of 4.17% was lower than that reported in previous studies. Clinically, recurrence may be associated with insufficient excision margins, residual microscopic lesions, or coexistence of other endometriotic foci. Nevertheless, the occurrence of recurrence after several years suggests the need for long-term follow-up, particularly in patients whose symptoms recur cyclically with menstruation.

Although rare, perineal endometriosis has features that predispose patients to delayed diagnosis: pain in a sensitive region, psychological reluctance, prolonged self-medication with analgesics, and limited disease awareness [6]. Therefore, practical recommendations include strengthening postpartum counseling on perineal abnormalities; training primary healthcare workers to recognize cyclical pain at episiotomy scars; establishing appropriate referral pathways when perineal endometriosis is suspected; and integrating quality-of-life assessment into post-treatment follow-up.

This study has several important limitations. First, convenience sampling at a single center reduces representativeness and limits generalizability. Second, the design relied on medical records, which carries a risk of missing data and the lack of standardized assessment time points. Third, detailed information on lesion characteristics, surgical techniques, and adjuvant medical treatment was unavailable; therefore, factors associated with complications or recurrence could not be analyzed. Fourth, the mean follow-up duration was not explicitly defined; recurrence based on records may be lower than the true incidence if patients did not return to the hospital.

5. CONCLUSION

The results indicate that surgery is an effective option for controlling pain and improving quality of life in patients with perineal endometriosis. In practice, emphasis should be placed on standardized pain assessment (NRS), quality-of-life evaluation (SF-36 or endometriosis-specific scales), and early monitoring of complications. For future research, prospective, multicenter studies are needed, with comprehensive collection of lesion characteristics, surgical techniques, and adjuvant treatment regimens, along with long-term follow-up to more accurately estimate recurrence rates.

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