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Original Article

Outcomes after Laparoscopic Excision of Bladder Endometriosis Using a CO_2 Laser: A Review of 207 Cases in a Single Center

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ABSTRACT

Study Objective

Assess efficacy, safety, fertility outcomes and recurrence after laparoscopic resection of bladder endometriosis (BE) using a CO_2 laser.

Design

Retrospective cohort study.

Settings

University gynecologic surgery unit, referral center for endometriosis.

Patients

A total of 207 women having undergone laparoscopic BE excision between January 1998and January 2019.

Interventions

None.

Main Outcome Measures

Intra- and postoperative complication rates. Disease recurrence and fertility outcomes in patients with a minimum 1-year follow-up (n=176) for “isolated” and “non-isolated” BE groups.

Results

Forty-three patients presented with isolated BE. Bladder “shaving” without mucosae opening was performed in 50.7% cases. No intraoperative complications were noted. One postoperative grade 3 complication was related to BE excision: a bladder breach requiring closure by repeat laparoscopy. Mean (± SD) follow-up was 7.05 (± 4.65) years. In patients wishing to conceive (n=132), the total pregnancy rate (PR) was 75% (48.5% spontaneous), 76.19% in the isolated BE group (56.3% spontaneous). Among the 94 patients with previous infertility, 74.5% conceived, 50% spontaneously. No statistical difference was found in PR and need for in vitro fertilization between isolated and nonisolated BE groups. BE recurrence rate was 3.4%. No difference was observed between groups with full-thickness bladder resection (4/88) and shaving (2/88) (p=.406). Age at surgery (hazard ratio 0.91 [0.84–0.98], p=.016) and postoperative pregnancy (hazard ratio 0.07 [0.01–0.91], p=.042) showed influence on disease recurrence.

Conclusions

The study demonstrates that laparoscopic BE removal is feasible with very low complications rates and was associated with high PR (both spontaneous and in vitro fertilization), even in patients with previous infertility. BE recurrence is lower than for other endometriosis locations. Bladder endometriosis; Laparoscopy; Deep infiltrating endometriosis; Fertility; Partial bladder resection

Keywords

Bladder endometriosis; Laparoscopy; Deep infiltrating endometriosis; Fertility; Partial bladder resection

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The authors declare that they have no conflict of interest.

Part of the study data was presented as an oral presentation at the annual congress of the Society of Endometriosis and Uterine Disorders (SEUD) in Stockholm, 8-10 december 2021. A poster was also presented at the European Society of Human Reproduction and Embryology congress in Milan, 3-6 July 2022.

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