ORIGINAL ARTICLE: ENDOMETRIOSIS

Rectal shaving for deep endometriosis infiltrating the rectum: a 5-year continuous retrospective series

Horace Roman, M.D., Ph.D.,[a,b] Salwa Moatassim-Drissa, M.D.,[a] Noemie Marty, M.D.,[a] Mathilde Milles, M.D.,[a] Aurélie Vallée, M.D.,[a] Eulalie Desnyder, M.D.,[a] Emanuela Stochino Loi, M.D.,[a] and Carole Abo, M.D.[a]

[a] Department of Gynecology and Obstetrics, and [b] Research Group EA 4308 Spermatogenesis and Male Gamete Quality, IHU Rouen Normandy, IFRMP23, Reproductive Biology Laboratory, Rouen University Hospital, Rouen, France

Objective: To report postoperative outcomes after rectal shaving for deep endometriosis infiltrating the rectum.
Design: Retrospective study using data prospectively recorded in the CIRENDO database.
Setting: University tertiary referral center.
Patient(s): One hundred and twenty-two consecutive patients whose follow-up observation ranged from 1 to 6 years.
Intervention(s): Rectal shaving performed using ultrasound scalpel or scissors and plasma energy in 68 and 54 women, respectively.
Main Outcome Measure(s): Postoperative digestive function assessed using standardized gastrointestinal questionnaires: the Gastrointestinal Quality of Life Index (GIQLI) and the Knowles-Eccersley-Scott-Symptom Questionnaire (KESS).
Result(s): Nodules were between 1 and 3 cm, <1 cm, and >3 cm in diameter, in 73.7%, 11.5%, and 14.8% of cases, respectively. They were located on the middle (9.2%) and upper rectum (50.8%). Clavien-Dindo 3a, 3b, 4a, and 4b complications occurred in 0.8%, 5.7%, 1.6%, and 0.8% of cases, respectively. Excepting two rectal fistulas (1.6%), the majority of complications were not related to rectal shaving itself. Gastrointestinal scores revealed statistically significant improvement in digestive function and pelvic pain at 1 and 3 years after rectal shaving, but not constipation. Rectal recurrences occurred in 4% of patients, 2.4% of whom had segmental resection, 0.8% shaving, and 0.8% disc excision. Three years postoperatively, the pregnancy rate was 65.4% among patients with pregnancy intention, 59% of whom conceived spontaneously.
Conclusion(s): Our data suggest that rectal shaving is a valuable treatment for deep endometriosis infiltrating the rectum, providing a low rate of postoperative complications, good improvement in digestive function, and satisfactory fertility outcomes. (Fertil Steril® 2016;■:■–■. ©2016 by American Society for Reproductive Medicine.)
Key Words: Colorectal endometriosis, colorectal resection, rectal endometriosis, shaving

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Rectal shaving is among the first techniques used to treat deep endometriosis infiltrating the rectum (1–3). In the literature, the terms shaving or partial full thickness excision correspond to removal of endometriosis nodules from the rectal wall without opening the lumen (4). For this reason, the technique of shaving does not mandatorily require suturing of the rectal wall, except in cases where the shaved rectal wall is excessively thin. In this latter case, the muscular layer may be considerably or completely removed, with a consecutive and increasing risk of necrosis and fistula of rectal wall.

Postoperative outcomes of rectal shaving have been evaluated in the literature through retrospective case series, most of them noncomparative. The investigators emphasized low rates of postoperative complications, which were presumed inferior to those after colorectal segmental resection (5, 6). In addition, postoperative digestive function related to conservation of mesorectum and overall rectal capacity could be better after rectal shaving than after colorectal resection (7). Conversely, the rate of postoperative recurrences could be

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Reprint requests: Horace Roman, M.D., Ph.D., Clinique Gynécologique et Obstétricale, CHU Charles Nicolle, 1 rue de Germont, 76031 Rouen, France (E-mail: horace.roman@gmail.com).

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higher, particularly in women seeking to conceive and having stopped contraceptive pill intake (8).

Our case series assessed postoperative rectal function, pelvic pain, fertility outcomes, and risk of recurrence in a series of consecutive patients managed by rectal shaving for deep endometriosis infiltrating the rectum.

MATERIALS AND METHODS

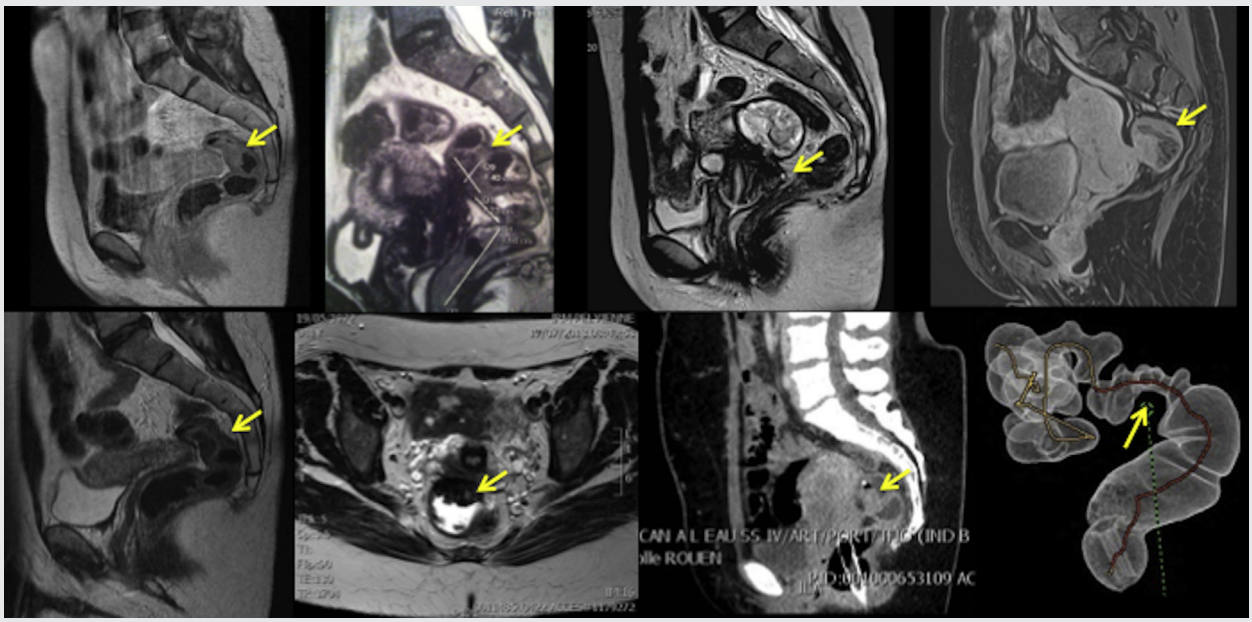
Patients

We included consecutive patients managed by rectal shaving for deep endometriosis infiltrating the rectum in the Department of Gynecology and Obstetrics of Rouen University Hospital (France) from June 2009 to September 2014, respecting a minimal follow-up of 12 months. Inclusion criteria were deep endometriosis revealed by clinical examination, confirmed by magnetic resonance imaging and/or endorectal ultrasound and intraoperatively; infiltration of the rectal muscular, submucosal, or mucosal layer; rectal involvement up to 15 cm above the anus; and a postoperative follow-up evaluation of more than 12 months. Patients presented with at least one rectal nodule, in some cases associated with nodules located on the upper digestive tract, so segmental resection of the sigmoid colon could be associated with rectal shaving. Patients presenting with deep rectovaginal endometriosis involving only rectal serosa and requiring superficial rectal shaving were excluded.

Patients were prospectively enrolled in the CIRENDO database (the North-West Inter Regional Female Cohort for Patients with Endometriosis), a prospective cohort financed by the G4 Group (the University Hospitals of Rouen, Lille, Amiens, and Caen, France), and coordinated by the corresponding author of the present study (H.R.). Information was obtained from surgical and histologic records and from self-questionnaires completed before surgery. Data recording, patient contact, and follow-up evaluations were performed by a clinical research technician. Postoperative follow-up evaluation was based on data from the aforementioned questionnaires completed at 1 and 3 years. Prospective data recording and analysis were approved by the French authorities CNIL (Commission Nationale de l'Informatique et des Libertés, the French data protection commission) and CCTIRS (Comité Consultatif pour le Traitement de l'Information en matière de Recherche dans le domaine de la Santé, the advisory committee on information technology in healthcare research).

The protocol for management of patients with rectal endometriosis in our department has been described previously elsewhere (7). Patients underwent preoperative assessment of deep endometriosis that included clinical examination, magnetic resonance imaging, endorectal ultrasound, and later computed tomography-based virtual colonoscopy, performed exclusively by experienced operators (Fig. 1). One senior gynecologic surgeon with experience in surgery of deep endometriosis selected the type of surgery to perform then performed the rectal shaving without being assisted by general surgeons. For the women who were not intending to conceive, postoperative treatment by continuous contraceptive pill intake was systematically recommended.

FIGURE 1



Preoperative assessment of deep endometriosis infiltrating the rectum in patients managed via rectal shaving (magnetic resonance imaging and computed tomography-based virtual colonoscopy).

Roman. Rectal shaving for deep endometriosis. Fertil Steril 2016.