Gynécologie Obstétrique & Fertilité 44 (2016) 121–124

Available online at
ScienceDirect
www.sciencedirect.com

Elsevier Masson France
EM|consulte
www.em-consulte.com

Clinical expert series

Multiple nodule removal in multifocal colorectal endometriosis instead of "en bloc" large colorectal resection

Exérèses multiples en cas d'endométriose digestive multifocale, plutôt que larges résections colorectales « en bloc »

H. Roman [a,*,b], B. Darwish [a], V. Bridoux [c], E. Huet [c], J. Coget [c], R. Chati [c], J.-J. Tuech [c], C. Abo [a]

[a] *Department of Gynecology and Obstetrics, Rouen University Hospital Charles-Nicolle, 1, rue de Germont, 76031 Rouen, France*
[b] *Research Group 4308 "Spermatogenesis and Gamete Quality", IHU Rouen Normandy, IFRMP23, Reproductive Biology Laboratory, Rouen University Hospital, 76031 Rouen, France*
[c] *Department of Surgery, Rouen University Hospital, 76031 Rouen, France*

ARTICLE INFO

Article history:
Received 26 July 2015
Accepted 6 October 2015
Available online 23 December 2015

ABSTRACT

Surgical management of colorectal endometriosis follows the principles of two main philosophies or approaches: radical and conservative. The radical approach has recently been recommended in multifocal colorectal endometriosis, which frequently concerns patients with rectal nodules. However, an alternative conservative management could employ selective retrieval of macroscopic colorectal deep endometriosis nodules by bowel shaving and disc excision, with preservation of the mesorectum. The conservative approach is justified by the evidence that low colorectal resection may lead to postoperative functional digestive symptoms for which management is most challenging. However, there is a lack of data in the literature specifically focusing on patients with multiple excision of deep colorectal endometriosis. No data exist about the minimal length of healthy bowel that should be conserved between two successive transversal bowel sutures, and on consecutive improvement of functional outcomes. Conversely, no evidence exists on presumed reduction of recurrence rate when young patients undergo low large colorectal resection, instead of multiple selective excisions. Further comparative studies would be welcome, among which the ENDORE randomized trial which may play a central role by comparing functional outcomes related to radical and conservative approach in deep endometriosis infiltrating the rectum.

RÉSUMÉ

Le traitement chirurgical de l'endométriose colorectale suit deux approches principales : radicale et conservatrice. L'approche radicale a été récemment recommandée en cas d'endométriose colorectale multifocale, qui existe chez de nombreuses patientes adressées pour une endométriose profonde infiltrant le rectum. Pourtant, une alternative chirurgicale plus conservatrice peut être proposée, en combinant des exérèses ou des résections sélectives au niveau de chaque nodule digestif. Cette approche conservatrice utilise, au niveau du rectum, le *shaving* et l'exérèse discoïde, qui permettent la préservation du mésorectum. Cette deuxième approche est justifiée par le risque de troubles fonctionnels digestifs liés à la résection colorectale basse. Pourtant, il existe peu de données dans la littérature concernant de manière spécifique les patientes traitées par des exérèses multiples. Il n'existe de données ni sur la longueur minime du segment rectal qui doit séparer deux sutures étagées, ni sur l'avantage en termes de préservation de la fonction rectale. Inversement, il n'y a pas de preuve scientifique solide qui recommande la résection colorectale chez les jeunes patientes, dans le seul but de prévenir les récidives.

* Corresponding author.
E-mail address: horace.roman@gmail.com (H. Roman).

http://dx.doi.org/10.1016/j.gyobfe.2015.10.005
1297-9589/

Il est souhaitable de bénéficier dans l'avenir d'études comparatives de bon niveau de preuve. Les résultats de l'essai randomisé ENDORE pourront prochainement apporter des informations sur la qualité de la fonction digestive chez les patientes opérées pour une endométriose rectale par résection colorectale ou chirurgie conservatrice.

1. Background

Surgical management of colorectal endometriosis follows the principles of two main philosophies or approaches, radical and conservative [1]. The first approach, radical or "oncologic-like", is based on systematic use of colorectal resection attempting complete removal of all macroscopic and microscopic implants present in the digestive tract. Historically, deep endometriosis was first treated by conservative techniques, however the involvement of general surgeons in multidisciplinary teams has progressively increased the frequency of bowel resections. As a matter of fact, the majority of patients managed worldwide for colorectal endometriosis is now treated in line with the radical philosophy. The radical approach has clearly been recommended in multifocal colorectal endometriosis, which concerns almost 40% of patients with rectal nodules [2].

The second approach is conservative and based on selective retrieval of macroscopic colorectal deep endometriosis nodules (i.e. bowel shaving and disc excision), with preservation of the mesocolon and mesorectum. In our opinion, the conservative approach is justified by the evidence that colorectal resection may lead to postoperative functional digestive symptoms for which management is most challenging [1]. The lower the resection, the more likely unfavorable functional outcomes become, due to the low anterior rectal resection syndrome. For these reasons, even though colorectal endometriosis is multifocal, the surgeons ought to attempt a conservative approach instead of a large low colorectal resection.

2. Surgical technique

Multiple selective resections of deep endometriosis nodules infiltrating the colon and the rectum may be performed as demonstrated in the movie (Video 1). The procedure is performed in a 29-year nullipara presenting with deep endometriosis of the vagina and left uterosacral ligament (LUSL), infiltrating the low rectum on 2 cm of length, with the inferior limit of the rectal infiltration located at 4 cm above the anal sphincter, as well as an infiltration of the sigmoid colon on 3 cm of length, at 20 cm above the anus. The close contact between the two colorectal localizations led to a bowel omega-loop of more than 10 cm of length (Fig. 1).

Preoperative assessment included pelvic MRI and transvaginal ultrasound, and provided an accurate overview of deep disease. Preoperatively, we decided to remove the low nodule by a transanal disc excision, employing either a semicircular stapler (the Rouen technique) or an end-to-end circular anastomosis stapler, depending on the largest diameter of rectal infiltration [3]. In regard to the nodule on the sigmoid colon, we planned either a disc excision or a short segmental resection. The performance of two separate procedures would avoid a 25-cm length colorectal resection with a 3–4-cm low colorectal anastomosis.

The first step is performed laparoscopically, and the goal is to achieve rectal shaving, to free the sigmoid colon, and to remove the deep nodule along with the vaginal fornix and the LUSL. In order to perform this, in our practice and in the movie, we use plasma energy (PlasmaJet, Plasma Surgical Limited, Abingdon, UK) which allows to dissect, cut, shave and ablate tissues (Video 1). Sigmoid colon is detached from the adhesions with the LUSL and the left ovary. Ureterolysis is performed to avoid inadvertent injury of the ureter during deep nodule removal. Once the colon is freed, rectal infiltration becomes apparent (Fig. 2).

Deep subperitoneal spaces located between the USL and the rectum are longitudinally opened. Dissection is performed in close contact with the lateral face of the rectum, and directed toward the healthy recto-vaginal space located below the endometriosis nodule. In patients with large infiltration of the posterior vagina, generally over 3 cm in diameter, the surgery starts by a first step through the vaginal route, with the goal to incise the vagina around the endometriosis nodule and open the rectovaginal space located below. Thus, this preliminary step guides and facilitates the laparoscopic dissection of the deep pelvis.

Once the lateral faces of the rectum have been freed, rectal shaving is performed as deeply as possible into the thickness of the rectal wall. In the movie, the plasma beam is oriented tangentially to the anterior face of the rectum, in cutting mode set at 50 Ultra, to paint the rectal surface in a frontal plane (Fig. 3). Dissection is carried out into the thickness of the rectal wall, in order to remove abnormal fibrous lesions involving the rectal layers, using a high magnification endoscopic view. Thus, the nodule is dissected away from the rectal wall, which could then be progressively mobilized upward.

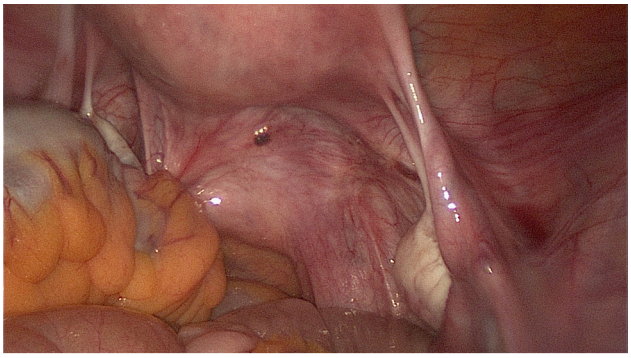

Fig. 1. Deep endometriosis of vagina and left uterosacral ligament infiltrating both the low rectum and the sigmoid colon, leading to a bowel omega-loop of more than 10 cm length.

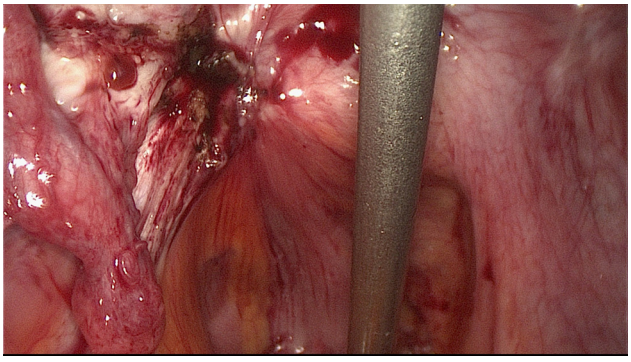

Fig. 2. Once the colon is freed, rectal infiltration by deep endometriosis nodule becomes apparent.