

Original Article

# Hysteroscopic Enucleation in Toto of Submucous Type 2 Myomas: Long-Term Follow-Up in Women Affected by Menorrhagia

Carlo Saccardi, MD, PhD\*, Lorena Conte, MD, Alberta Fabris, MD, Francesca De Marchi, MD, Angela Borghero, MD, Salvatore Gizzo, MD, and Pietro Litta, MD

From the Department of Women's and Children's Health, Obstetrics and Gynecology Clinic, University of Padua, Padua, Italy (all authors).

**ABSTRACT** **Study Objective:** To evaluate long-term efficacy of type 2 myoma enucleation in toto.

**Design:** Longitudinal retrospective study (Canadian Task Force classification II-2).

**Setting:** University obstetrics and gynecology clinic.

**Patients:** One hundred twelve women with menorrhagia and at least 1 type 2 submucous myoma who underwent hysteroscopic myoma enucleation in toto.

**Intervention:** Clinical long-term follow-up.

**Measurements and Main Results:** Success of the procedure and influence of myoma characteristics on recurrence of menorrhagia were evaluated. Mean (SD) follow-up was 58.4 (19.1) months. The success of the procedure was 88.4% (99 patients). Seventeen patients (15.2%) underwent a 2-step procedure. Among patients with relapsed menorrhagia, 10 (8.9%) underwent a repeat operation. Statistical analysis showed that number and diameter of myomas did not influence the outcome. Localization in the posterior wall of the uterus, compared with other sites, was associated with a higher percentage of resolution of menstrual symptoms ( $p = .03$ ). There was no significant relationship between myomas features and risk of symptom recurrence during follow-up. The 2-step myomectomy was performed in patients with myomas  $>30$  mm in diameter ( $p < .001$ ).

**Conclusion:** Hysteroscopic enucleation in toto of type 2 myomas is a safe and effective technique in long-term management of premenopausal women with menorrhagia. *Journal of Minimally Invasive Gynecology* (2014) 21, 426–430 © 2014 AAGL. All rights reserved.

**Keywords:** Enucleation in toto; Hysteroscopy; Long-term outcome; Menorrhagia; Submucous type 2 myoma

**DISCUSS** You can discuss this article with its authors and with other AAGL members at <http://www.AAGL.org/jmig-21-3-JMIG-D-13-00501>



Use your Smartphone to scan this QR code and connect to the discussion forum for this article now\*

\* Download a free QR Code scanner by searching for "QR scanner" in your smartphone's app store or app marketplace.

Uterine leiomyoma is the most common tumor of the female genital tract, affecting 25% of women of reproductive age and  $>40\%$  of women aged  $\geq 40$  years [1,2]. Only 5% to 10% of all uterine myomas are submucous. Submucous myomas may induce severe clinical symptoms such as

abnormal uterine bleeding (menorrhagia and metrorrhagia), infertility, pelvic pain, and dysmenorrhea [1,3–5]. Historically, patients with symptomatic submucous myomas have undergone hysterectomy or myomectomy via laparotomy, resulting in increased intraoperative and postoperative morbidity, longer recovery time, and higher costs [6]. Currently, hysteroscopic myomectomy is considered first-line conservative surgical therapy [7–9]. Removal of myomas that develop completely within the uterine cavity (type 0) by slicing is considered a safe technique that is easy to perform and has a high success rate. More challenging is resectoscopic resection of submucous myomas with intramural development, in particular those with  $>50\%$  of intramural component (type 2). In such

The authors declare no conflicts of interest.

Corresponding author: Carlo Saccardi, MD, PhD, Department of Women's and Children's Health, Obstetrics and Gynecology Clinic, University of Padua, Via Giustiniani 3, 35128 Padua, Italy.

E-mail: [carlo.saccardi@unipd.it](mailto:carlo.saccardi@unipd.it)

Submitted September 9, 2013. Accepted for publication November 17, 2013.

Available at [www.sciencedirect.com](http://www.sciencedirect.com) and [www.jmig.org](http://www.jmig.org)

1553-4650/\$ - see front matter © 2014 AAGL. All rights reserved.

<http://dx.doi.org/10.1016/j.jmig.2013.11.007>

cases the procedure is more difficult, with increased risk of severe complications, and in some cases could require more than a single surgical step, and thus should be performed by a trained surgeon [8,10–15].

Several techniques have been proposed to completely remove type 2 myomas, with the objective of reducing intraoperative complications. In 2003, Litta et al [16] proposed a new technique, hysteroscopic enucleation in toto, for treatment of myomas with high intramural involvement, that favoring the intracavitary protrusion of the myoma ensures safe removal while minimizing damage to the surrounding myometrium.

The primary objective of the present study was to evaluate the safety and long-term efficacy of hysteroscopic enucleation in toto in patients with symptomatic type 2 myomas.

## Materials and Methods

This longitudinal retrospective study included 112 consecutive women who had undergone enucleation in toto hysteroscopic myomectomy from January 2005 to December 2010 at our institution. Included were women with menorrhagia,  $\geq 1$  type 2 submucous myomas with myometrial free margin  $>4$  mm (myometrial thickness between uterine serosa and myoma pseudocapsule evaluated via transvaginal sonography), and age at surgery between 18 and 48 years.

Excluded were women with associated intracavitary lesions requiring other hysteroscopic procedures (endometrial polyp or hyperplasia, endometritis, or adenomyosis), those with a history of endocrine disease (thyroid, adrenal, or pituitary) or systemic diseases identified as the cause of abnormal uterine bleeding, and those with malignant uterine lesions identified via transvaginal ultrasound or outpatient diagnostic hysteroscopy.

Data recorded were age at surgery, parity, menstrual pattern, preoperative medical treatment with gonadotropin-releasing hormone analogues, myoma characteristics such as number, location, and diameter, type of anesthesia (unconscious sedation or subarachnoidal) [17], operative time, and surgical complications. All patients gave informed consent. Formal institutional review board approval (No. 2732P) from the local ethics committee was obtained.

All myomectomy procedures were performed by 2 skilled operators (C.S. and P.L.), as previously described by Litta et al [16], using a 26F 12-degree forblique resectoscope (Karl Storz GmbH & Co., Tuttlingen, Germany) connected to an electrosurgical monopolar electrode (cutting current 80 W) and hypotonic distention medium (1% glycine, 1% mannitol in 1000 mL water).

An elliptical incision of the endometrial mucosa that covered the intracavitary part of the myoma was performed using a Collins electrode at the level of its reflection on the uterine wall. The connective bridges between the myoma and the surrounding myometrium were then cautiously re-

sected, allowing protrusion of the entire myoma into the uterine cavity, transforming the myoma from type 2 to type 0, enabling safe removal of the myoma via gradual slices of the tissue, starting from the top of myoma to the base, using a 90-degree loop electrode (traditional slicing technique) [16]. The sectioned fragments of myoma were then removed by grasping them with the loop electrode and removing the resectoscope from the uterine cavity.

Women with myomas  $>3$  cm in greatest diameter were advised that a 2-step procedure could be required. In cases in which myomas had a large intramural component or fluid imbalance during surgery was close to 1 L, the myoma was not completely removed. The procedure was suspended, and a second surgery was planned for after about 50 days (2 menstrual cycles) to complete the myomectomy. A 2-step procedure was not considered as failure, whereas the need for a second procedure because of recurrence of menorrhagia was considered as failure.

During follow-up, all patients completed a questionnaire about symptom recurrence, menstrual pattern, repeat treatment, and concurrent surgery. Recurrence was defined as abnormal uterine bleeding requiring repeat surgical or medical treatment.

Statistical analysis was performed using commercially available software (SPSS for Windows, version 19.0; SPSS Inc., Chicago, IL). Data are given as frequency (percentage) for categorical variables and as mean (SD) for continuous variables. For statistical analysis, the  $\chi^2$  test or Fisher exact test was used. The level of significance was set at  $p < .05$ .

## Results

Mean (SD) patient age at surgery was 40.7 (6) years, and all patients were premenopausal. Fifty-six women (50%) were nulliparous, and 56 (50%) were multiparous. All patients had menorrhagia, and 12 (10.7%) also had pelvic pain. Preoperative treatment with gonadotropin-releasing hormone agonist (3.75 mg) was prescribed for 2 months in 33 women (29.4%) with large myomas ( $>30$  mm) and anemia. A total of 154 myomas were resected; single myomectomy was performed in 87 patients (77.6%), and multiple myomectomy in 25 (22.4%). The diameter of type 2 myomas was 28.3 (10.4) mm. Myoma characteristics and surgical data are given in Table 1.

Seventeen patients (15.2%) underwent a 2-step procedure. Of these, 13 had a single type 2 myoma  $>30$  mm (mean diameter, 41.1 mm), 3 patients had 2 type 2 myomas, and 1 had a type 0 myoma and a type 2 myoma  $>40$  mm. Number and location of the myomas seemed not to be correlated to the second step, whereas the association between the 2-step and myoma  $>30$  mm was statistically significant ( $p < .001$ ).

We registered 3 cases (2.7%) of intravasation (fluid imbalance  $>1$  L), only 1 (0.9%) of which required care in the intensive care unit for 2 days because of severe hyponatremia ( $<120$  mmol/L), confusion, and blurred vision, which led to the suspicion of incipient cerebral edema.

Download English Version:

<https://daneshyari.com/en/article/3956456>

Download Persian Version:

<https://daneshyari.com/article/3956456>

[Daneshyari.com](https://daneshyari.com)