

## CASE REPORT

# Laparoscopic supracervical hysterectomy and uterine morcellation: A case report from Asokoro District Hospital, Abuja, Nigeria

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## Abstract

Advanced gynecological laparoscopic surgery is an evolving subspecialty that requires specialized skills, expertise and equipment. This is more challenging and daunting, especially in sub Saharan Africa. Laparoscopic supracervical hysterectomy (LSCH) is an advanced gynecological procedure that has hitherto been seen as difficult because of the big size uteri seen in Nigerian women. We present the first LSCH and uterine morcellation done in Nigeria in a 45-year-old multipara on account of symptomatic uterine fibroid of 16 weeks size, at the Asokoro District Hospital, Abuja, Nigeria. She fared well postoperatively and highly satisfied with the procedure at the gynecological clinic review. Our case report has demonstrated clearly that the uterine size is not a limitation to laparoscopic hysterectomy. With proper port placement and adequate skills, LSCH of big size uteri, which is typical in sub Saharan Africa, can be safely achieved. We, therefore, recommend capacity building of Gynaecologists and peri-operative nurses in the field of minimal access surgery and improvement in the equipment in our various facilities to the modern standard.

**Key words:** Hysterectomy, laparoscopy, morcellation, Nigeria

**Date of Acceptance:** 23-Feb-2015

## Introduction

Operative laparoscopy is a common procedure globally today having evolved from a limited diagnostic procedure a few decades ago to a major surgical tool for many gynecological and nongynecological indications.<sup>[1]</sup> The benefits include more rapid recovery, shorter hospital stay, and less pain.<sup>[2,3]</sup>

Several reports in the literature have demonstrated the safety, effectiveness, and reproducibility of laparoscopic hysterectomies after training.<sup>[2,3]</sup> However, only a few reports on operative gynecological laparoscopy are available in Nigeria.<sup>[4]</sup> The objective of this case report is to demonstrate the feasibility of performing advanced operative laparoscopy in a secondary health care facility in Nigeria.

We present a case report of laparoscopic supracervical hysterectomy (LSCH) and uterine morcellation in Asokoro District Hospital (ADH), Abuja, Nigeria, a secondary health care facility.

## Case Report

The patient was a 45-year-old para 4 all alive woman who presented with 2 years history of menorrhagia secondary to uterine fibroid. Examination revealed an abdominopelvic mass of 16 weeks size [Figure 1]. She had a comprehensive preoperative evaluation and LSCH was done on the April 1, 2014. Patient was

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DOI: 10.4103/1119-3077.163280

surgically prepared in Lloyd Davies position following general anesthesia and Clermont Ferrand uterine manipulator inserted. A direct trocar entry was made 6 cm above the umbilicus with 10 mm pyramidal trocar. CO<sub>2</sub> pneumoperitoneum created through the cannula to achieve 15 mmHg intra-abdominal pressure. Three ancillary 5 mm ports introduced under direct vision and sited as shown in Figure 2. Diagnostic laparoscopy was done. Hemoperitoneum noticed, and the source of oozing was from adhesions of the right adnexium and the posterior uterine wall.

The round ligament, ovarian ligament, and the oviduct on the left were coagulated with bipolar Maryland forceps and divided with scissors sequentially. Same for the right. The anterior leaf of the broad ligament was opened, and the uterovesical fold incised and bladder reflected downward. Difficulty in exposing the uterine pedicles was surmounted by the use of myoma screw and claw forceps. The uterine pedicles were coagulated and divided bilaterally.

Circumferential supracervical incision was made using monopolar L-hook electrode. Hemostasis was secured on the cervical stump with bipolar current. Persistent oozing from the posterior leaf of the right broad ligament accounting for the significant hemorrhage observed was secured by intracorporeal knots to avoid thermal injury to the ureter. Cervical stump approximated with vicryl 1 using intracorporeal suture. The left lateral port was extended to accommodate 15 mm cannula for morcellation of the uterus with electronic morcellator. The specimen weighed 900 g [Figure 3]. All ports removed under vision, and the wound closed in layers [Figure 4]. Estimated blood loss was 1000 ml.

Postoperatively, she had prophylactic subcutaneous enoxaparin. She complained of dizziness with a hematocrit of 22% on the 2<sup>nd</sup> postoperative day. Two units of whole blood was transfused, and she was discharged home on the 6<sup>th</sup> day postoperation with a hematocrit of 30%. Patient presented at the follow-up clinic 2 weeks and 6 weeks postoperation highly satisfied with the procedure. Operation



**Figure 1:** The margins of the uterus marked preoperation



**Figure 2:** Picture showing ports placement and the surgical team



**Figure 3:** Morcellated uterine specimen



**Figure 4:** The abdomen on the 1<sup>st</sup> postoperative day

sites completely healed and histology result confirmed Leiomyoma Uteri.

## Discussion

Advances in hysterectomy range from laparoscopic-assisted vaginal hysterectomy (LAVH), total laparoscopic hysterectomy (TLH), LSCH and more recently robotic TLH. Literature on laparoscopic hysterectomy in Nigeria is limited with Ikechebelu *et al.* reporting an LAVH<sup>[5]</sup> and Badejoko *et al.* reporting a TLH.<sup>[4]</sup> These laparoscopic hysterectomies were for normal size uteri, however, no literature was found on Laparoscopic hysterectomy for bulky uterus >12 weeks size and morcellation in Nigeria. This case report emphasizes the challenges of performing laparoscopic hysterectomy in sub-saharan Africa where presentation with huge uteri with fibroids remains a constant reality.

Laparoscopic supracervical hysterectomy is indicated in women with abnormal uterine bleeding, symptomatic uterine fibroid or other benign conditions with no history of recent or current cervical dysplasia.<sup>[6]</sup> LSCH is a valid alternative to TLH in the absence of a specific indication for TLH, presumably due to the reduction in the risk of bladder and ureteral injuries.<sup>[7]</sup> LSCH has also been shown to be easier to perform with shorter operation time, shorter hospital stay and less morbidity.<sup>[3,7,8]</sup> The choice of performing a TLH procedure instead of an LSCH seems to be influenced by fear of cervical cancer. However, the risk and the prognosis of cancer in the cervical stump are comparable to those present in the general population.<sup>[9]</sup>

Our patient had a 16-week size uterus with uterine fibroid (weight 900 g). A Clermont-Ferrand uterine manipulator was used instead of a RUMI manipulator. A simple Spackman's cannula secured to a vulsellum is another adaptation.<sup>[4]</sup> However, the uterine size here is a limitation. Access was gained using the direct trocar entry technique which is a safe and fast approach to abdominal entry for laparoscopic surgery without prior pneumoperitoneum.<sup>[10,11]</sup> Other methods of access include veress needle insertion and open technique.<sup>[10,11]</sup> The primary and the ancillary ports were inserted to achieve proper ergonomics considering the uterine size [Figure 2].

Adhesiolysis of the right adnexal adhesions increased our operating time and blood loss. Increased operating time and excessive hemorrhage requiring blood transfusion occurring especially at the early stages of the learning curve has also been observed in some studies.<sup>[2]</sup> Uterine morcellation was done using an electronic morcellator. The possibility of a transcervical morcellation has also been reported which does not require enlarging the abdominal port for introduction of the morcellator.<sup>[12]</sup> The risk of potentially disseminating an occult endometrial malignancy or leiomyosarcoma during

morcellation is a concern; but the reported incidence of 0.1–0.2% for leiomyosarcoma is low.<sup>[13]</sup> However, no feature of endometrial malignancy was observed, Pap smear was negative and histology revealed Leiomyoma uteri, hence morcellation was found to be appropriate.

She was not transfused intra operatively until the 2<sup>nd</sup> postoperative day when a hematocrit was done. This inadvertently increased her postoperative hospital stay to 6 days following transfusion with 2 U of blood. This is within documented postoperative hospitalization of 2–7 days in conventional laparoscopic hysterectomies.<sup>[14]</sup> She had postoperative enoxaparin to prevent deep venous thrombosis.

She was counseled on the need for a regular Pap smear according to the hospital protocol. Post LSCH cyclical spotting per vaginum is a documented complication,<sup>[3]</sup> however, this could be psychologically reassuring to patients in sub-saharan Africa.

## Conclusion

Our case report has demonstrated clearly that the uterine size is not a limitation to laparoscopic hysterectomy. With proper port placement and adequate skills, LSCH of big size uteri, which is typical in sub Saharan Africa, can be safely achieved.

## Recommendation

To reduce capital flight in health sector of resource poor countries, we recommend capacity building of Gynaecologists and peri-operative nurses in the field of Minimal Access Surgery and improvement in the equipment in our various facilities to modern standard.

## Acknowledgment

We appreciate the immense contribution of the entire peri-operative and anesthetic staff of ADH to the success of this procedure.

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**How to cite this article:** Akintobi A, Bello O, Asaolu O, Ikena G, Adebayo A. Laparoscopic supracervical hysterectomy and uterine morcellation: A case report from Asokoro District Hospital, Abuja, Nigeria. *Niger J Clin Pract* 2015;18:824-7.

**Source of Support:** Nil, **Conflict of Interest:** None declared.

