EDORIUM Journals

J Case Rep Images Obstet Gynecol 2022;8(2):21–24.
www.ijcriog.com

CASE REPORT PEER REVIEWED | OPEN ACCESS

Robotic hysterectomy for the treatment of refractory menometrorrhagia and squamous endometrial morules: A case report

Emma M Schnittka, Nick W Lanpher, Jacqueline Sylvester

ABSTRACT

Introduction: Abnormal uterine bleeding (AUB) is a common presentation in the field of gynecology. Proper diagnosis and management of this condition can be difficult and permanent treatment options, including robotic hysterectomy, may be necessary. In patients with a history of previous abdominal surgery, pelvic adhesions may present obstacles to this surgical approach.

Case Report: In this case report, a 41-year-old woman desired permanent treatment for AUB. The patient underwent endometrial biopsy which revealed inexplicit squamous morules. She opted for permanent treatment via robotic hysterectomy. Her operation was complicated by the presence of dense pelvic adhesions caused by previous surgeries.

Conclusion: This report aims to detail the potential difficulties in the clinical management of inconclusive biopsy results and in using a robotic approach to hysterectomy in the setting of pelvic adhesions. Authors encourage ongoing clinical investigation to determine the optimal methods for diagnosing and treating AUB.

Keywords: Abnormal uterine bleeding, Case report, Robotic hysterectomy, Squamous morules

Emma M Schnittka[1], BS, Nick W Lanpher[1], BA, Jacqueline Sylvester[2], MD, FACOG

Affiliations: [1]Alabama College of Osteopathic Medicine, 445 Health Sciences Blvd, Dothan, AL 36303, USA; [2]Department of Obstetrics and Gynecology, Huntsville Hospital, 101 Sivley Road SW, Huntsville, AL 35801, USA.

Corresponding Author: Emma M Schnittka, Gates Mill St. NW, Huntsville, AL 35805, USA; Email: schnittkae@acom.edu

Received: 31 August 2022
Accepted: 19 September 2022
Published: 14 October 2022

How to cite this article

Schnittka EM, Lanpher NW, Sylvester J. Robotic hysterectomy for the treatment of refractory menometrorrhagia and squamous endometrial morules: A case report. J Case Rep Images Obstet Gynecol 2022;8(2):21–24.

Article ID: 100128Z08ES2022

****

doi: 10.5348/100128Z08ES2022CR

INTRODUCTION

A typical menstrual cycle averages 24 to 38 days, lasts 7 to 9 days, and involves approximately 5 to 80 mL of blood loss. Variation from these parameters characterizes abnormal uterine bleeding (AUB), a condition affecting up to one-third of women. Abnormal uterine bleeding can have both structural and non-structural causes. Structural causes are often notated using the pneumonic PALM—polyp, adenomyosis, leiomyoma, and malignancy or hyperplasia. Non-structural causes are abbreviated COEIN—coagulopathy, ovulatory dysfunction, endometrial disorders, iatrogenic, or not classified [1]. Various medical and surgical treatment options are available based on the underlying etiology. Patients with AUB refractory to traditional treatment may request a more radical approach, including the removal of the uterus via hysterectomy. Following FDA approval in 2005, the robotic approach to hysterectomy has been increasing in popularity among gynecologic surgeons and their patients. This minimally invasive method is associated with shorter hospital stays and faster returns to activities of daily living [2].

A common effect of obstetric and gynecologic surgical procedures, including hysterectomy, myomectomy,

ovarian cystectomy, and Cesarean delivery, is the postoperative development of pelvic adhesions. Surgical trauma induces inflammation, subsequently recruiting macrophages, fibroblasts, and extracellular matrix proteins to the site of injury. This process results in the formation of adhesions, bands of connective tissue, within the pelvic cavity. Adhesions are associated with numerous postoperative morbidities including small bowel obstruction, infertility, and chronic pain [3]. While interventions for the prevention of pelvic adhesions are currently being explored, this case report details the consequence of pelvic adhesions in the surgical performance of robotic hysterectomy in a patient requesting the permanent treatment of refractory AUB.

CASE REPORT

A 41-year-old female presented for evaluation of painful, prolonged, heavy menstrual bleeding. She reported bleeding was severe, necessitating multiple transfusions over the past 11 years. Anemia was also reported, with hemoglobin levels having dropped as low as 6 g/dL. Symptoms had been nonresponsive to oral contraceptive therapy. Medical history was significant for acid reflux, type II diabetes mellitus, and morbid obesity. Obstetric and gynecologic history included two dilation and curettage (D&C) procedures, a laparoscopic right ovarian cystectomy, and one Cesarean section. The patient noted persistent right lower quadrant pain since her cystectomy four years prior. She had no history of abnormal pap smears and family history was negative for gynecologic malignancies.

Bimanual exam was significant for an anteverted uterus of eight-weeks size. No abnormalities of the external genitalia, vagina, or cervix were noted. Adnexa was non-tender and non-enlarged on palpation.

Possible diagnoses including intramural uterine leiomyoma (based on mild uterine enlargement) and endometrial hyperplasia [based on severity of bleeding and patient's body mass index (BMI)] were considered and discussed. The patient agreed to a diagnostic transvaginal ultrasound. This revealed an endometrial lining which was approximately 2.0 cm thick but no other uterine abnormalities. Visualization of the ovaries also revealed no abnormality. Results were discussed with the patient and consent was obtained for further evaluation via D&C endometrial biopsy (EMB). Endometrial biopsy pathology report noted the following: "Scant fragments of shedding weakly proliferative endometrium with secretory glands and extensive squamous morular proliferation." Written commentary expanded upon this statement noting, "Squamous morules can be seen in association with normal endometrium, endometrial polyp, atypical polypoid adenomyoma, endometrial hyperplasia, or a low-grade malignancy. Clinical correlation and/or D&C is advised if clinically indicated."

After a discussion of the biopsy results and the risks and benefits of treatment options, including more-extensive D&C and hysterectomy, the patient desired a robotic hysterectomy for the definitive treatment of endometrial squamous morules and menometrorrhagia. In addition, the patient requested removal of her right ovary due to persistent right lower quadrant pain and for the prevention of future ovarian cysts. A robotic hysterectomy with bilateral salpingectomy and right oophorectomy was planned.

The patient underwent general endotracheal anesthesia. A vaginal speculum was inserted, and four abdominal ports were placed and attached to the da Vinci robot. Abdominal inspection revealed dense adhesions spanning the omentum, greatly obscuring the pelvis. These adhesions were excised, permitting visualization of the pelvic cavity which contained a bulky, irregular uterus. Additional adhesions can be seen between portions of the bowel, omentum, and left ovary (Figure 1). These were lysed to facilitate salpingectomy. When observing the right adnexa, a large remnant of the patient's previous ovarian cyst was noted along with ovarian adhesions to the right pelvic side wall (Figure 2). This ovary was removed as planned. Orienting inferiorly, dense adhesions were seen along the anterior surface of the bladder. These were excised down to the lower segment of the uterus and the uterus and fallopian tubes were subsequently extracted.

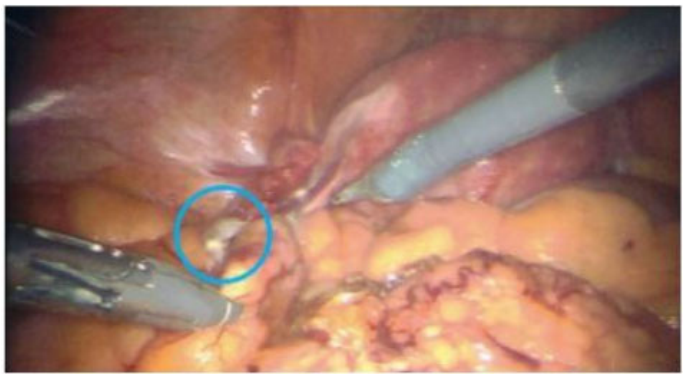


Figure 1: Left ovary (circled in blue) with adhesions to the bowel and omentum.

Figure 2: Right ovary with a remnant of previous ovarian cyst.

The patient left the operating room in stable condition and was admitted for postoperative monitoring and was then discharged without complications. Subsequent biopsy of the uterus revealed a benign endometrial polyp without hyperplasia or malignancy. The specimen weighed 193.6 g. Biopsies of the right ovary and bilateral fallopian tubes also revealed benign pathology. The patient was expected to make a full recovery in four to six weeks.

DISCUSSION

Abnormal uterine bleeding (AUB) is a prevalent condition which poses a diagnostic challenge to gynecologists [1]. In recurrent or refractory cases, hysterectomy may be necessary to provide permanent relief. Advances in non-invasive surgery have allowed this procedure to be performed robotically, aiding in patient recovery time [2]. Both prevention of open abdominal surgery and a timely return to activities of daily living were considered strengths of the management approach detailed in this case report. Yet, as demonstrated, a robotic hysterectomy may be complicated by pelvic adhesions. Physicians may need to consider this in treating patients with a history of abdominal or pelvic surgery. While the patient in this case had preoperatively consented for the removal of her right ovary, this could have been an unforeseen morbidity of the procedure. Furthermore, by both obscuring the surgical field and necessitating excision, pelvic adhesions may place patients at higher risk for bowel or bladder perforation or increased bleeding.

In addition to highlighting the surgical barriers of pelvic adhesions, this case emphasizes the complexity of interpreting nonconclusive biopsy results. As noted in the referenced pathology report, squamous morules are associated with a variety of histologic and clinical presentations. Current research corroborates these statements. A study by Lin et al. reveals that lesions with isolated squamous morules without concomitant glandular findings are associated with a 16.1% persistence rate and a 6.5% risk of progression to cancer. Lesions with both squamous morules and glandular cells, as seen in this case report, have an 11.1% persistence rate and no progression to cancer. Prior research suggests that these outcomes may be explained by the regulatory effects of estrogens and progestins on glandular proliferation [4]. Regardless, pathologists agree that management of endometrial lesions with squamous morules should be based on clinical judgement. In this case report, the patient and physician collaboratively opted for robotic hysterectomy to absolve the risk of endometrial malignancy and provide a permanent treatment for AUB.

CONCLUSION

Both conservative and radical approaches can be taken in the management of abnormal uterine bleeding and indistinct biopsy results. Robotic hysterectomy provides a minimally invasive, definitive treatment option; however, this surgical procedure may be complicated by pelvic adhesions in patients with a history of abdominal or gynecologic surgery. Clinical judgement and patient collaboration should be utilized to determine the best approach for improving patient health and quality-of-life.

REFERENCES

1. Davis E, Sparzak PB. Abnormal Uterine Bleeding. 2022 Feb 10. In: StatPearls. Treasure Island (FL): StatPearls Publishing; 2022.
2. American College of Obstetricians and Gynecologists' Committee on Gynecologic Practice, The Society of Gynecologic Surgeons. Robot-Assisted Surgery for Noncancerous Gynecologic Conditions: ACOG COMMITTEE OPINION, Number 810. Obstet Gynecol 2020;136(3):e22–30.
3. González-Quintero VH, Cruz-Pachano FE. Preventing adhesions in obstetric and gynecologic surgical procedures. Rev Obstet Gynecol 2009;2(1):38–45.
4. Lin MC, Lomo L, Baak JP, et al. Squamous morules are functionally inert elements of premalignant endometrial neoplasia. Mod Pathol 2009;22(2):167–74.

****

Author Contributions

Emma M Schnittka – Conception of the work, Design of the work, Acquisition of data, Analysis of data, Interpretation of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Nick W Lanpher – Analysis of data, Interpretation of data, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Jacqueline Sylvester – Conception of the work, Design of the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Guarantor of Submission

The corresponding author is the guarantor of submission.

Source of Support

None.

Consent Statement

Written informed consent was obtained from the patient for publication of this article.

Conflict of Interest

Authors declare no conflict of interest.

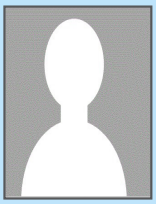
Data Availability

All relevant data are within the paper and its Supporting Information files.

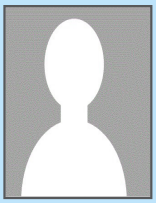
Copyright

ABOUT THE AUTHORS

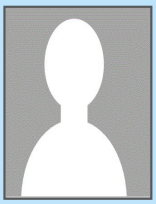
Article citation: Schnittka EM, Lanpher NW, Sylvester J. Robotic hysterectomy for the treatment of refractory menometrorrhagia and squamous endometrial morules: A case report. J Case Rep Images Obstet Gynecol 2022;8(2):21–24.



Emma M Schnittka is a third-year medical student at the Alabama College of Osteopathic Medicine in Dothan, AL, USA. She earned her Bachelor of Science in Biology from the University of Wisconsin. Her research interests include clinical obstetrics and gynecology, urogynecologic surgery, and disparities in women's health. She intends to pursue a career involving these interests as a physician.



Nick W Lanpher is a third-year medical student at the Alabama College of Osteopathic Medicine in Dothan, AL, USA. He earned his Bachelor of Arts in Psychology with Special Honors from the University of Texas at Austin. His research interests include urology, urogynecologic surgery, and men's health. He intends to pursue a career involving these interests as a physician.



Jaqueline Sylvester, MD, FACOG, graduated with a Bachelor of Science from Oakwood College. She went on to study medicine at the University of North Carolina and completed her OB/GYN residency at Kaiser Permanente Medical Center. With over 26 years of experience she has established expertise within clinical and surgical obstetrics and gynecology. She currently practices in Huntsville, AL, USA.