



Successful Removal of 68 Fibroids from A Uterus At Myomectomy: Case Report.

Boniface Uji Ago¹, Edet Effiong Ekpo¹

¹Department of Obstetrics and Gynaecology, University of Calabar, Calabar, Nigeria

Corresponding author: Boniface Uji Ago

Department of Obstetrics and Gynaecology, University of Calabar, Calabar, Nigeria

Abstract

The removal of multiple uterine nodules has often been a challenge due to excessive bleeding and sometimes death during or after myomectomy. When the fibroids are too many, the advice is to remove them together with the uterus (hysterectomy). The main symptoms and signs are abnormal menstrual bleeding and pain, and presence of pelvic mass respectively. Pelvic imaging is a necessary aid in diagnosis and treatment option. In this case, we safely removed by abdominal myomectomy 68 fibroids only from one uterus to preserve the uterus for fertility.

Key words: Multiple fibroids, abdominal myomectomy, case-report.

Received 28 Mar, 2022; Revised 06 Apr, 2022; Accepted 08 Apr, 2022 © The author(s) 2022.

Published with open access at www.questjournals.org

I. Introduction

Uterine fibroids or leiomyomas are benign monoclonal proliferations of smooth muscle cells, which are commonly associated with the black race, nulliparity, obesity and familial predisposition.¹ Fibroids may be single intracavitary, submucous, intramural, or subserous (either sessile or pedunculated), or multiple (causing varying deformity to the uterus). The sizes range from 0.1cm to 20 cm in diameter and commonly coexist with pregnancy. The impact of fibroids on fertility and pregnancy depends on their location. Submucous fibroids and intracavitary polyps as well as large intramural fibroids interfere with sperm migration, implantation and growth of early gestations leading to lack of fertilization or chemical pregnancy losses.² Although there is insufficient scientific evidence linking fibroids with miscarriages,^{3, 4} Miscarriages in the first trimester, abnormal placentation, premature contraction and labour and abnormal fetal lie are commonly observed in patients with fibroids in pregnancy. Fibroids undergo painful degenerations in pregnancy (red degeneration),⁵ and torsion if large and pedunculated. They cause excessive blood loss during delivery, and primary postpartum haemorrhage, as well as subinvolution of the uterus in the puerperium and secondary postpartum haemorrhage.

The size, site and number of fibroids may determine the complication. The treatment options may be medical or surgical. Fibroids may be removed by open laparotomy, laparoscopically, hysteroscopically, or by robotic approach. Hysterectomy (removal of the uterus) has often been advised as a preferred option of treatment for huge fibroids because of the risk of intraoperative and postoperative haemorrhage. The procedure also depends on the expertise of the surgeon. This case is presented that myomectomy is still safe in a patient with a uterus riddled with about 68 fibroids, especially where future fertility is desired.

II. Case Presentation

A 38-year old nulliparous, nulligravid, single woman, presented on the 4th of February 2020 because of progressive abdominal swelling and abnormal vaginal bleeding of five years duration. She had similar complaints for which myomectomy was done at a private hospital 7 years prior to this presentation.

She had menarche at age 14. There was associated dysmenorrhoea and menometrorrhagia, but no abnormal vaginal discharge. She used barrier method of contraception, and had never done Pap smear. She had been having intermittent vaginal bleeding in the last three months, and since she was no longer sure of her menstrual cycle, she wore a pad every day.

On examination, she was moderately pale, anicteric, and afebrile. Her vital signs were stable. There were no abnormal findings in the head, neck and chest. The breasts were normal. The abdomen was

asymmetrically enlarged, with a 30-week sized uterine enlargement. She had a previous midline scar, which was broad and serpentine, 5cm above and to the left of the umbilicus extending 6cm below the umbilicus, slanting to the right 3 cm from the midline.

An abdominopelvic ultrasound scan done revealed normal liver, kidneys and spleen. The uterus was massively enlarged and lobulated with multiple heterogeneous fibroids. The endometrium was distorted but the endometrial lining was 3.8mm thick. The adnexae were obliterated but no fluid collection in the pouch of Douglas.

Her packed cell volume was 22%. Hepatitis B surface Antigen, Hepatitis C Virus and Human Immunodeficiency Virus serology tests were non-reactive. Urinalysis was normal.

She had an intramuscular injection of 150 mg of Medroxyprogesterone acetate (Depo provera) to curtail the uterine bleeding while being prepared for surgery. Haematinics were prescribed for three months.

She had counselling for total abdominal hysterectomy but she declined because she wanted to retain her fertility.

Preoperative packed cell volume was 30%, electrolyte urea and creatinine were all within normal limits.

Surgery was done on the 8th of May 2020 under subarachnoid block.

The broad previous scar was excised to gain access to the peritoneal cavity but moderate adhesions made delivery of the uterus difficult. The anterior surface of the uterus was firmly adherent to the anterior abdominal wall.

Adhesiolysis was done to free the uterus, however, there was no space to apply tourniquet at the uterine isthmus. The uterus was bisected longitudinally in the anteroposterior plane to remove the large endometrial fibroid polyps, intramural and subserosal nodules which enabled the use of Foley catheter at the isthmus of the cervix as tourniquet. Tourniquet time was 45 minutes.

The uterus was 30 weeks size and contained 68 fibroid nodules: 22 large (9x10 cm), 22 medium (5x6cm), 20 small (2x3cm), and 4 seedlings (1x1cm). The fibroids were fundal, cornual (bilateral), anterior and posterior uterine walls and cervical. There were six endometrial cavity polyps. Redundant uterine tissues were excised.

The left ovary appeared normal but the right ovary had a 2x3cm cyst, which was enucleated.

At the end of surgery the uterus was 18 week size. Haemostasis was secured and anatomy was restored using haemostatic suturing.

Blood clots in the pelvic and abdominal cavities were removed and saline irrigation done before closing the anterior abdominal wall by mass closure technique. The skin was repaired subcuticularly. The estimated blood loss was 1.5 litres. The surgery lasted for two hours.

Her immediate postoperative condition was stable.

Her vital signs were monitored quarter hourly and then four-six hourly. She had intravenous fluids and antibiotics, intramuscular and rectal analgesics.

Subcutaneous enoxaparin was commenced 12 hours post operatively as a daily dose for three days. The fluid input and output was monitored and found satisfactory. Urethral catheter was also removed 12 hours after surgery. When taking orally, analgesics, antibiotics and haematinics were given.

Postoperative packed cell volume done 48 hours after surgery was 17%. She had an uneventful transfusion of two units of packed cells. She was ambulant, remained stable clinically without vaginal bleeding or wound discharge for the subsequent 3 days.

Post-transfusion packed cell volume done 48 hours after transfusion was 23%. She had a pint of whole blood transfusion, and maintained clinical improvement until her discharge on the sixth postoperative day to follow-up.

Her follow-up was six weeks after operation. She had recovered completely and just started her menstruation, which was without pain and the flow was normal. The wound had healed very well with excellent apposition. The uterus was not palpable per abdomen. Digital vaginal examination was not done because she was menstruating.

Her packed cell volume was 33%

Follow-up pelvic ultrasound scan done on 21/7/2020 showed a bulky anteverted uterus with heterogeneous myometrial echopattern with a regular outline. It measured 12.5x5.5x6.9 cm. There were multiple round hypoechoic nodules in the anterior uterine wall, the largest was 1.9x1.5cm. The endometrial echostripe measured 3mm. Both adnexae were free, and there was no fluid in the pouch of Douglas. The urinary bladder had clear fluid with normal wall thickness.

Patient's perspective

I am unmarried but hoping to have a child of my own. I had an initial surgery, which was very challenging for my previous doctor who could not continue the surgery after opening me up because he feared I could bleed to death. Although I noticed my tommy swelling up as if I was pregnant, I was too scared for

another surgery. The worst part of my story was the fact that I was always anemic, losing so much menstrual blood on a daily basis. The pains in my tummy were so severe I was always taking analgesics, until I developed stomach ulcer.

My niece working with Dr Ago convinced me for another surgery after discussing with him. At my appointment day, I consented to the surgery, which changed my life. Now I have my regular menses I look forward to pregnancy when I get married.

III. Discussion

Excessive blood loss (haemorrhage) is a major challenge during myomectomy. The number of fibroids, which can safely be removed without destroying the integrity and function of the uterus depend on the technique and expertise of the surgeon. This becomes apt when dealing with multiple huge fibroids which have deformed the anatomy of the uterus that needs to be preserved for future fertility.

Securing haemostasis is vital to preventing haemorrhage at surgery. The use of vasopressin infiltration before enucleation of fibroids is effective.⁶ El Sharkwy reported that using rectal misoprostol plus perivascular vasopressin was more effective at reducing blood loss than using tourniquet.⁷ However, there are concerns that intramyometrial injection of vasopressin may pose a cardiac challenge in some patients.⁸

Temesgen reported the removal of 36 fibroids from a 26-year old nulliparous woman using the tubing of an intravenous fluid giving set as tourniquet at the level of the uterine isthmus. The patient's postoperative haematocrit was 28.5%, a drop of about 7% from a preoperative haematocrit of 35.4%. The patient received two pints of blood transfusion and recovered well.⁹

We used Foley catheter applied at the uterine isthmus after overcoming the difficulty of access due to adhesions from her previous surgery and large uterus. We had to bisect the uterus and remove the cervical, some intracavitary and intramural fibroids to achieve the application of the tourniquet. The preoperative haematocrit of 30% dropped to 17% about 48 hours after surgery, but the patient remained haemodynamically stable. She had three pints of blood transfusion in all, and by the sixth week, her haematocrit had risen to 33%. It was significant to note that the return of menstruation was timely and normal, which was a huge relief for the patient. Several authors have reported on the use of Foley catheter as an effective uterine isthmus tourniquet during abdominal myomectomy, and it does not reduce the ovarian reserve.¹⁰ The concern of how long tourniquet should be in place and the risk of thromboembolism are often borne in mind. Our patient had a tourniquet time of 45 minutes but the surgery lasted for two hours. She was given subcutaneous enoxaparin for thromboprophylaxis.

The patient is still on follow-up having regular normal menstruation. Intrauterine adhesions following surgeries involving breaches of the endometrium affect return of normal menstrual cycles. Although intrauterine adhesion can occur without intraoperative breaches of the cavity, cavity entry is associated with increased risk (14.6 vs 7.2%).¹¹

IV. Conclusion

This case is presented to report that myomectomy rather than hysterectomy is achievable and safe where the uterus has about 68 fibroid nodules.

- It is already known that abdominal myomectomy is a safe surgical option
- What is not exactly known is how to handle a uterus riddled with multiple huge fibroids. This case report shows that myomectomy rather than hysterectomy is achievable and safe in a uterus containing 68 fibroids

Competing interests

We declare none

Author contributions

BUA was the lead Surgeon, conceptualized and wrote the manuscript, edited, proofread and approved final copy. EEE was the assistant surgeon, read the manuscript for correctness, proofread and approved final copy.

Acknowledgement

We thank all Nursing and Anaesthesiology staff who provided the enabling environment for surgical management.

List of Figures

Figure 1: Fibroid uterus partially delivered through the abdominal incision.

Figure 2, and 3: Fibroids inside a bucket containing formalin for histology

References

- [1]. Stewart EA, Cookson CL, Gandolfo RA, Schulze-Rath R. Epidemiology of uterine fibroids: a systematic review. *BJOG* 2017;124(10):1501-1512 DOI:10.1111/1471-0528.14730
- [2]. Purohit P, Vigneswaran. Fibroids and infertility. *Curr Obstet Gynaecol Rep* 2016;5:81-88
- [3]. Hartmann KE, Edwards DRV, Savitz DA, Jonnson-Funk ML, Pingsheng W, Sundermann AC, Baird DD. Prospective Cohort study of uterine fibroids and miscarriage risk. *American Journal of epidemiology* 2017;186(10):1140-1148
- [4]. Vasireddy A, Sampson U, Channing R, Johns J, Ross JA. Fibroids and the risk of miscarriage: prospective observational study. *Ultrasound in Obstetrics & Gynecology* 2021;58(S1):20
- [5]. Cerdeira AS, Tome M, Moore N, Lim L. Seeing red degeneration in uterine fibroids in pregnancy: proceed with caution. *THE LANCET* 2019;394(10212):E37
- [6]. Vilos AG, Allaine C, Laberse P-Y, Leyland N. The management of uterine leiomyomas. SOGC Clinical Practice Guideline. *J Obstet Gynaecol Can* 2015;37(2):157-178
- [7]. El Sharkwy IAE, Mohammed Lotfy, Abdeldayem HM, Hameed AA. Rectal misoprostol plus perivascular vasopressin vs tourniquet to decrease blood loss during abdominal myomectomy. *Gynecol Surg* 2016;13:373-377 DOI:10.1007/s10397-016-0956-2
- [8]. Muthukumar M, Mathews L, Vasantha NS, Anoop S. Intramyometrial vasopressin as a haemostatic agent: is it really safe? Brief communication. *Indian Journal of Anaesthesia* 2015;59(1):51-53
- [9]. Temesgen TB. Successful removal of 36 fibroids from a uterus: case report. *OAT Clinical Case Reports and Reviews* 2015;1(2):25-26.
- [10]. Mehdizadehkashi A, Tahermanesh K, Rokhgireh S, Astarai V, Najmi Z, Rakhshande M, Allahqoli L, Ahmadi Pishkuli M, AlkatoutI, Chaichian S. Uterine isthmus tourniquet during abdominal myomectomy: support or hazard? Arandomized double blind trial. *Gynecol Obset Invest* 2020;85:396-404 DOI:10.1159/000510512
- [11]. Bortoletto P, Keefe KW, Unger E, Hariton E, Garguilo AR. Incidence and Risk Factors for Intrauterine Adhesions following Myomectomy. *Journal of minimally invasive Gynecology* 2020;27(7)suppl:s112

Uterus with fibroids delivered through the abdominal wall incision prior to myomectomy.

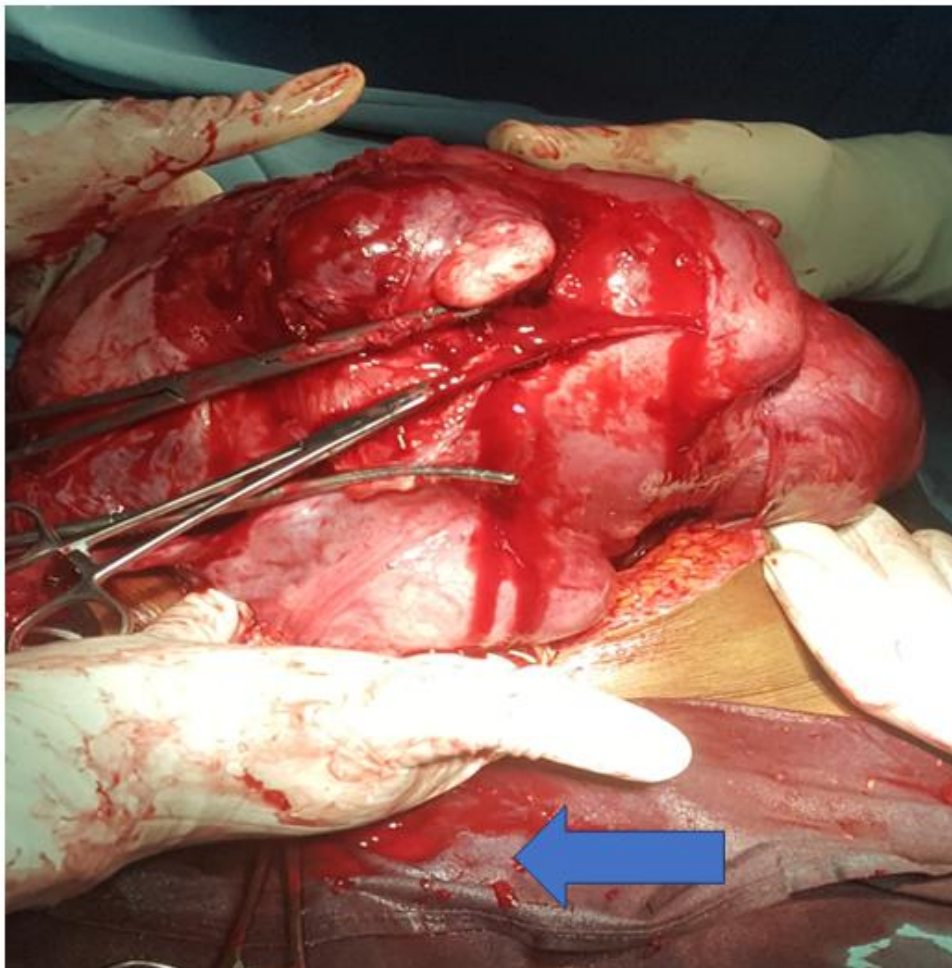


Figure 1: Uterus and fibroids. Some fibroid nodules are shown in arrow. Uterus was deformed and ovaries plastered posteriorly



Figure 2: View from top. Fibroids inside a large bucket containing formalin. Fibroid nodules and excised uterine tissues displayed.



Figure 1: View from the side. Fibroids inside the bucket in Figure 2.