ISSN 2689-8268 | Volume 4

American Journal of Surgery and Clinical Case Reports

Research Article Open Access

Vaginal Myomectomy For A Very Large Fibroid (1530 Gm) – A Case Report and Sharing of Technique

Felix Wu Shun Wong[1*], and Zhen-xiang Jia[2]

[1]The School of Women's and Children's Health, The University of New South Wales, NSW, Australia

[2]Department of Gynecology of the Maternity and Child Care Hospital of Tai'an, Tai'an; China

[*]Corresponding author:

Felix Wu Shun Wong,
The School of Women's and Children's Health,
The University of New South Wales, NSW,
Australia, E-mail: fwong3@hotmail.com.hk

Received: 13 Mar 2022
Accepted: 30 Mar 2022
Published: 05 Apr 2022
J Short Name: AJSCCR

Citation:

Felix Wu Shun Wong. Vaginal Myomectomy For A Very Large Fibroid (1530 Gm) – A Case Report and Sharing of Technique. Ame J Surg Clin Case Rep. 2022; 4(8): 1-3

Keywords:

Vaginal myomectomy; Large fibroid; Jia's myomectomy screw; Technique

1. Abstract

Vaginal myomectomy for a large fibroid is not a common surgical procedure because of difficult vaginal access and hemostatic issue. Surgical myomectomy for large fibroids is usually performed either laparoscopically or abdominally. This paper reported a novel vaginal morcellation technique of vaginal myomectomy to demonstrate the feasibility and safety even for a very large anterior fibroid. The step-by-step surgical technique of vaginal myomectomy using a surgical instrument called "Jia's myomectomy screw" is described.

2. Case Report

A 39 years para one woman suffered from heavy periods with severe anemia of 7.6 g/dL. She was admitted to the Maternity and Child Care Hospital at Tai An, China. Physical examination revealed a distended abdominal mass from the pelvis reaching the umbilical level (Figure 1A). Vaginal examination showed a grossly enlarged uterus with no palpable adnexal mass. An ultrasound scan confirmed a solitary anterior fibroid, measuring 14.4 x 12.4x 10.0 cm with a hypoechoic image and clear border. No adnexal cystic mass was found. The diagnosis was a large anterior uterine fibroid. She was scheduled for a vaginal myomectomy because she refused prior GnRHa treatment, abdominal myomectomy, or hysterectomy. She was advised of the difficulty of the vaginal myomectomy with complications of blood loss, operative failure, and neighboring organs injury. She signed the consent for the operation. The operation was performed by our author JZX as a standard vaginal surgical procedure in his hospital. The operation was moderately difficult because of the size, but the vaginal myomectomy was completed without complications (Figure 1B). She received two units of blood and recovered well after the operation and was discharged home on day four after her vaginal myomectomy.

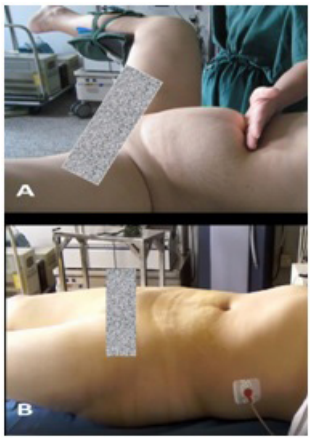

Figure 1: A. On examination, the uterine mass was palpable up to the umbilical level before the vaginal myomectomy operation. B. After the myomectomy, the abdomen showed no enlarged mass after the vaginal myomectomy

2.1. The Surgical Technique Is Described as Follows

After the induction of general anesthesia, the patient was placed in the Trendelenburg position with legs supported for vaginal surgery. The bladder was catheterized [1]. A semi-annular full-thickness incision was made beginning from the 9- to the 3-o'clock at 0.5 centimeters above anterior vaginal rugae. The vesicouterine peritoneal reflection was incised and opened. The bladder was separated from the anterior cervix, exposing the anterior wall of the uterus. Through the vaginal introitus, the "Jia's myomectomy screw" was drilled into the prominent part of the exposed fibroid (Figure 2A). The fibroid was pulled down the vaginal canal till a larger surface could be exposed. Another myomectomy screw was inserted into the neighboring fibroid tissue about 1-2 cm from the first myomectomy screw for additional traction (Figure 2B). Incision and dissection of a large piece of the fibroid using a No. 22

scalpel blade was performed and then removed by the first myomectomy screw (Figure 2C). Although we did not use local vasopressin or intravenous oxytocin, the bleeding from the cut fibroid surface was not be excessive. Occasional suction away of blood was still required to clear the operation field. The alternating uses of anchoring myomectomy screws could apply traction to prevent the uterus from falling back into the pelvis. Cold knife morcellation around one of the myomectomy screws could remove the large fibroid piece by piece. The fibroid size could gradually be reduced to a size that could be pulled out with two or three traction myomectomy screws at the introitus (Figure 2D). During the procedure, care is needed to avoid the endometrial injury and enter into the endometrial cavity. Bleeding was noticeably minimal because the fibroid tissue was relatively avascular, provided that the pseudocapsule was carefully separated away from the fibroid. Occasionally, the fibroid was fixed and failed to pull down, possibly due to its large size or an irregular configuration. In such instances, the remaining large uterine specimen was pushed back into the abdominopelvic cavity and manually rotated to allow it to be repositioned. It then allowed another part of the fibroid to be exposed for morcellation. Sometimes a pair of four teethed tenaculum forceps could be used in the morcellation procedure to provide more efficient traction to deliver a large piece of tissue during the fibroid morcellation [2]. Followed by piecemeal removal of the main bulk of fibroid tissues, complete removal of any residual fibroid could be done either by twisting the remaining piece of fibroid or dissecting it from the uterine wall (Figure 2E). Hemostasis with diathermy or suturing over the uterine myomectomy bed was performed. The uterine wound was closed tightly, and the anterior uterine wall was reconstructed (Figure 2 F, G). If necessary, any endometrial injury should be repaired with No. 2-3 o Vicryl. The uterus was then pushed back into the pelvic cavity through the anterior colpotomy wound. A T-tube drain was inserted for drainage to reduce the risks of the pelvic abscess (Figure 2 H). Then, the vaginal vault wound was closed with No. 1 o Vicryl sutures after the myomectomy procedure. Foley catheter was placed in the bladder for postoperative drainage for two days. It completed the vaginal myomectomy procedure.

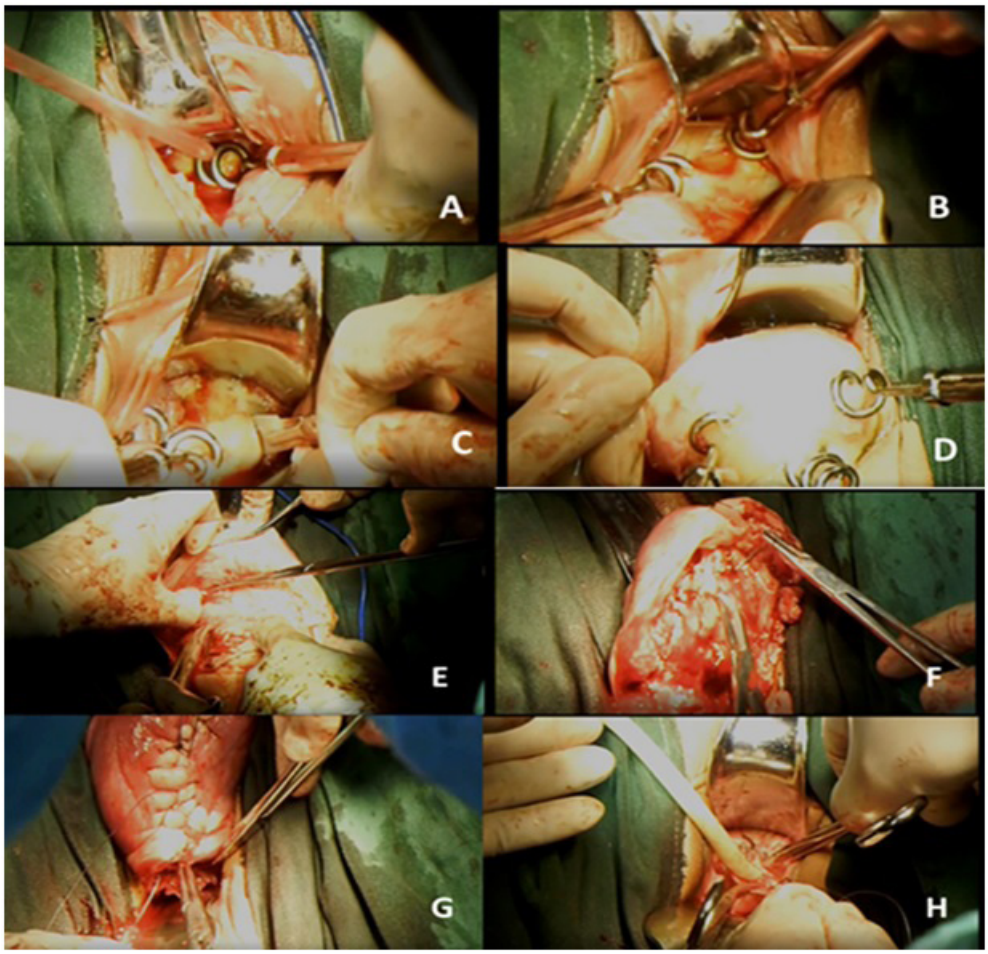

Figure 2: (A) A "Jia's myomectomy screw" was drilled into the prominent part of the exposed fibroid. (B) Two myomectomy screws provide extraction to the fibroid. (C) Cutting and removing a large piece of fibroid anchored by the first myomectomy screw. (D)The fibroid of reduced size could be pulled out with three traction myomectomy screws at the introitus. (E) the complete removal of any residual fibroid by dissecting it from the uterine wall. (F, G) Hemostasis and closure of the myomectomy cavity were performed, and the anterior uterine wall was reconstructed. (H) The uterus was then pushed back into the pelvic cavity, and a T-tube drain was inserted for drainage.

3. Conclusion

Uterine fibroids are the most common gynecological diseases in women. The removal of fibroids involved abdominal, laparoscopic, and vaginal routes where laparoscopic and vaginal surgery are minimally invasive surgeries clinically. However, the rate of vaginal myomectomy remains variable, from 10% to 90%. Magos et al. first described the surgical management of uterine fibroid via a vaginal incision in 1994 [1]. Since then, many papers have demonstrated that it was an advantageous, feasible, and safe procedure [2,3]. Vaginal myomectomy varies in difficulty depending on the different locations of fibroids, sizes, single or multiple. Some hospitals have not yet carried out vaginal myomectomy because of its lack of training and technical difficulty. Yet, we illustrated that the above surgical technique using "Jia's myomectomy screws" to morcellate and reduce the size of a large fibroid for a vaginal myomectomy is feasible. The authors also described the use of the "Jia's myomectomy screws" for vaginal hysterectomy recently [4]. Some surgeons may advocate the pre-operative use of GnRHa to reduce the size of fibroids before the myomectomy. Yet, vaginal myomectomy of a large anterior fibroid without prior use of GnRHa has also been reported, but the procedure had not been clearly described [5]. Thus, this paper help to share a surgical technique to remove a very large anterior fibroid vaginally. The vaginal myomectomy, however, requires great skill by the surgeon, especially for treating large uterine fibroid. Although it is feasible to remove a very large anterior fibroid with the technique described above, the bleeding from this case of very large fibroid was comparatively more than those reported, and from that of laparoscopic myomectomy approach [6], the potential risks of pelvic infection, bladder injury, subsequent genital prolapse, or urinary incontinence due to excessive traction to deliver the fibroid should not be underestimated and be monitored. The other shortcomings of the vaginal myomectomy, such as removing a large posterior fibroid, multiple fibroids, soft "gravel-like" fibroids that are not easy to remove, should also be carefully considered. Therefore, a surgeon should have a skilled laparotomy basis and accumulate experience to improve his skills and techniques of vaginal surgery. In short, vaginal myomectomy is a feasible and safe method of myomectomy.

References

1. Magos AL, Bournas N, Sinha R, Richardson RE, O'Connor H. Vaginal myomectomy. BJOG: An International Journal of Obstetrics & Gynaecology. 1994; 101(12): 1092-4.
2. Rolli R, Favilli A, Acanfora MM, Scuderi G, Di Renzo GC, Gerli S. Vaginal myomectomy is a safe and feasible procedure: A retrospective study of 46 cases. Journal of Obstetrics and Gynaecology Research. 2012; 38(9): 1201-5.
3. Carminati R, Ragusa A, Giannice R, Pantano F. Anterior and posterior vaginal myomectomy: a new surgical technique. MedGenMed. 2006; 8(1): 42-.
4. Yu-tao Gao, Felix Wu Shun Wong, Hai-jin Jia, Zhen-xiang Jia. Anterograde Transvaginal Total Hysterectomy: A Novel Surgical Approach to Hysterectomy. Journal of surgery. 2021; 6(16): 1455- 9.
5. Deval B, Rousset P, Kayani S. Vaginal myomectomy for a thirteen-centimeter anterior myoma. Case reports in obstetrics and gynecology. 2013; 2013.
6. Plotti G, Plotti F, Di Giovanni A, Battaglia F, Nagar G. Feasibility and safety of vaginal myomectomy: a prospective pilot study. Journal of minimally invasive gynecology. 2008; 15(2): 166-71.