

Treatment of Cervical Leiomyoma: Case Report and Literature Review

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ABSTRACT

Introduction: Uterine cervical fibroids are rare, accounting for about 5% of all myomas. Compared to myomas in general, cervical fibroids are located close to other organs such as the bladder, ureters, and rectum, so they require careful consideration in choosing the best surgical procedure.

Case Presentation: A woman 40 years old comes to the gynecology outpatient clinic at the hospital with complaints vaginal bleeding and pain pelvis as well as difficulty defecating. Palpable abdominal examination results in mass congested as high as two fingers on symphysis. On examination, the vaginal, portion cervix is difficult to rate because there is a mass solid that is in the vagina part top. CT scan shows an existing mass in the cervix uteri measuring 7.57 cm × 7.6 cm × 7.95 cm. Cervical myoma diagnosis has then done laparotomy myomectomy next hysterectomy. Choice laparotomy because mass cervical large pressing myoma biological bladder and rectum so that difficult done laparoscopy.

Conclusion: It has been reported cases of cervical myomas that have done laparotomy myomectomy and hysterectomy. No there are complications during and after surgery

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INTRODUCTION

The most common gynecological disorders are uterine myomas with a prevalence of 20-50% in women of reproductive age. Most myomas are associated with the uterine body. And less than 5% of all types of myomas are cervical myomas. The approach to cervical myomas needs to be modified because of their proximity to other organs, such as the bladder, ureters, and rectum. Cervical myoma management is preferable to laparoscopic myomectomy and hysterectomy rather than laparotomy, because laparoscopy has advantages over laparotomy (Matsuoka et al., 2010; Patel et al., 2011).

Based on the location, cervical myoma is classified into two types, comprising intracervical and extra cervical types (Patel et al., 2011). Symptoms of abnormal uterine bleeding and menstrual complaints in patients with cervical myomas are not dominant so cervical myomas are generally only detected after myomas are 5-24 cm in size (Fukui et al., 2021). Large cervical fibroids can occupy space in the pelvic cavity, shift the position of the ureter, and causes enlargement of uterine arteries and veins (Chen et al., 2021).

The main management of most fibroids is surgery with indications of mass-related symptoms, abnormal uterine bleeding, recurrent miscarriage, and infertility to reduce the chance of recurrence in women who do not wish to maintain their fertility (Fukui et al., 2021).

CASE PRESENTATION

A woman 40 years old come to Gynecology outpatient clinic with a complaint vaginal bleeding for the past three months. Complaints accompanied by difficulty defecating and abdominal pain part bottom. There is a history of fibroids since 2016 with a size of 6 cm. No there is a history of cancer cervix as well as uterine and breast tumors in families. On examination of physique obtained state general patient looks sick medium. Awareness compositional. Vital signs and general status other in normal state. On abdominal examination, palpable mass congested two fingers up symphysis and accompanied by pain press. Mass size as pregnancy 12 weeks old difficult moved (mobility-limited), liver and spleen no palpable. Vaginal examination (bimanual), portion difficult rated because there is mass big protruding

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pussy part on fill in whole fornices. The uterine corpus is the head baby. Adnexa and parametrium normal. On examination, the speculum looks mass big protruding vaginal part top, mass impression slippery no fragile no easy bleed.

The laboratory results showed hemoglobin: 9.5 g/dL and current blood sugar of 115 mg/dL. On CT scan results, it appears Boundary lobulated homogeneous solid lesion firm, regular edge on the posterior cervix size 7.57 cm × 7.6 cm × 7.95 cm (anteroposterior, transverse, and height, respectively) with the uterine body visualized above and the fundus reaching 5 cm cranially to the sacral promontory (Figure 1).

Written informed consent was obtained for exploratory laparotomy with total abdominal hysterectomy. Then decided for done laparotomy abdominal exploration. Operation Durante uterus found normal size with mass myoma in the cervix that comes in to in the vagina, the size of the tumor is boxing mature. Diagnosis is cervix myoma and done myomectomy next hysterectomy. adnexa right and left normal. myoma cervix is taken in size of about 8 × 8 cm (Figure

2). No there are complications During surgery and after the operation. The patient was sent home after three-day care in condition good and healthy. Histopathological pictures show cervical leiomyoma images. one month then control to Gynecology outpatient clinic, patient in condition good and healthy.

DISCUSSION

Procedure surgery for cervical myomas is a challenge alone for doctors in expert gynecology because need sufficient experience and expertise. Risks and complications of surgery related to the position of cervical leiomyoma in the pelvic organs, in front near the bladder, posterior to the rectum, and bilaterally to the ureters. Leiomyomas can have associations with these structures, and often difficult to separate these organs, so which complicates tumor identification. Surgical action will be more complicated because of limited field operation. Cervical myomas, especially when large, can change the position and structure, and anatomy of this organ in the pelvis (Ferrari et al., 2021; Liu et.al., 2007). Currently,

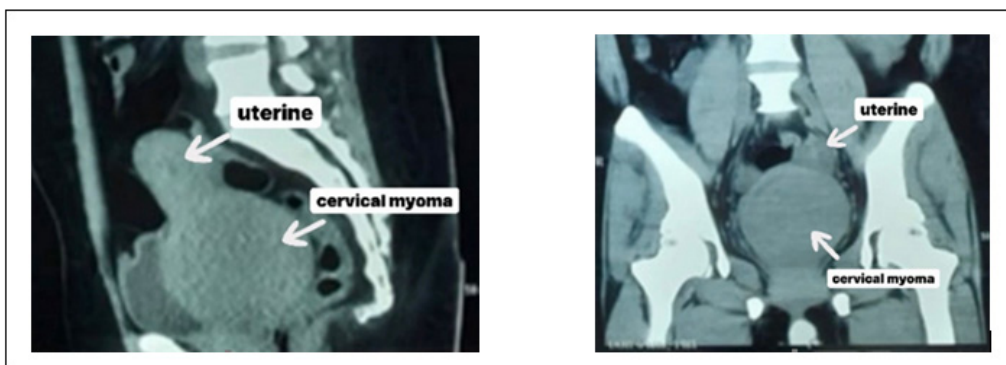


Fig. 1: CT Scan examination shows the uterus with cervical leiomyoma



Figure 2: Macroscopic findings of a cervical leiomyoma after myomectomy

there is not a standardized treatment for cervical leiomyomas. This study aims to summarize current literature evidence about treatment options for cervical leiomyomas. Materials and methods: A systematic research of the literature was conducted in Scopus, PubMed/MEDLINE, ScienceDirect, and the Cochrane Library, including observational prospective and retrospective studies, case series and case reports. We collected data regarding studies related to treatment options for cervical leiomyomas, evaluating the following aspects: study design, population, treatment type, rate of surgical complications, and fertility outcome. Results: According to literature research, 38 articles were included. Among 214 patients, the weighted average age was 39.4 years-old; 23 patients were pregnant. Most of the leiomyomas 78%.

The structure of the altered anatomy associated with limited surgical access increases the risk of injury to the pelvic organs as well as difficulty controlling bleeding. Another risk of surgical treatment of cervical myomas is intraoperative bleeding caused by both the anatomic positioning of the cervical myomas adjacent to the uterine arteries and veins and

the neovascularization of the myomas themselves (Liu et al., 2007).

In the case that I report, cervical myoma is on the posterior side. Procedure the operation we choose is laparotomy myomectomy next hysterectomy. Size and location myoma be one the reason. Size myoma is as big as a boxing adult, and its location in the posterior area becomes something the trouble that will be faced if done laparoscopy. In Thing this, laparoscopy is also difficult done because should open the plica vesicouterine. The mass also presses the rectum so that the risk existence complications is sufficiently big.

Many report cases of cervical myoma and have procedure different operations. Almost like our case, Peng et al did procedure laparotomy in patients' cervical myoma with a myoma diameter of 10 cm which occupies vesicles and pushes the cervix toward behind (Peng et al., 2016). Study according to Abu Hashim et al, a laparotomy myomectomy was performed on a patient with cervical myoma weighing 473 grams. myoma fulfills whole cavity hips, so difficult access the wall side

Table 1: Short literature summary

No.	First Author	Publication year	Age years	Imaging results, size, weight	Primary surgical procedure	Pathology
1.	Yosuke Fukui.(Fukui et al., 2021)	2021	49	<ul style="list-style-type: none"> MRI revealed the cervix had an 18× 15×11 cm leiomyoma, and the uterine corpus had 4 cm and 5 cm leiomyomas. 	The procedure included a complete abdominal hysterectomy and bilateral salpingectomy.	Leiomyoma
2.	Mo Chen.(Chen et al., 2021)	2020	53	<ul style="list-style-type: none"> A 10 cm diameter cervical myoma was discovered behind the right side of the uterus on abdominal ultrasonography. 	a total laparoscopic hysterectomy	
3	Hatem Abu Hashim.(Abu Hashim et al., 2020)	2019	27	<ul style="list-style-type: none"> Asuring 10.5 × 12 cm (probably of uterine origin). With the uterine body visible above and the fundus stretching 5 cm cranially to the sacral promontory, MRI indicated a 9.2 ×12 cm (anteroposterior, transverse, and height, respectively). 	Laparotomy myomectomy	Cervical leiomyoma
4.	Mariusz Bidzinki.(Bidziński et al., 2015)	2014	48	<ul style="list-style-type: none"> An 11-cm cervical leiomyoma with evidence of bladder neck compression was seen on ultrasonography. 	Total abdominal hysterectomy	Leiomyofibroma
5.	Kentaro Nakayama.(Nakayama et al., 2017)	2017	51	<ul style="list-style-type: none"> A cervical myoma measuring 108×103×90 mm (depth, width, and height, respectively) was discovered on the left side over the posterior wall of the uterine cervix during an MRI examination. The uterus had grown to 155×103×102 mm in size, and the uterine fundus had grown to 5 cm cranial to the promontory. 	Total laparoscopic hysterectomy	Cervical myoma

No.	First Author	Publication year	Age years	Imaging results, size, weight	Primary surgical procedure	Pathology
6.	Garzon-Lopez O.(Garzon-Lopez et al., 2015)	2014	31	<ul style="list-style-type: none"> An MRI revealed a 15-centimeter-diameter myoma. 	Laparoscopic myomectomy	with no evidence of malignancy on histopathology
7.	Lee EM.(Lee et al., 2019)	2019	49	<ul style="list-style-type: none"> A big multi-fibroid uterus was seen on MRI, including a dominating 10-centimeter cervical fibroid and a dominant 9-centimeter broad ligament fibroid. 	Vaginal myomectomy, laparoscopic hysterectomy	Benign leiomyoma
8.	Kavita Khoiwal.(Kavita Khoiwal, Amrita Gaurav, Payal kumari, Anupna Kumari, 2019)	2019	53	<ul style="list-style-type: none"> CECT abdomen and pelvis suggestive of a well-defined solid cystic lesion of size 21 × 15 × 14 cm (CC × AP × TR) with a solid component measuring around 18× 14× 14 cm (CC AP TR) and heterogeneous enhancement on post contrast examination. 	Hysterectomy (total abdominal hysterectomy) Salpingoovariotomy on both sides	Mucoid degradation and bleeding regions in leiomyoma
9.	J Ekweani.(Ekweani et al., 2016)	2016	45	<ul style="list-style-type: none"> An abdominopelvic ultrasound, the uterus was bulky and anteverted. A spherical and hypoechoic mass measuring 8.5 cm ×6.9 cm was found in the myometrium's lower region/cervix. A large cervical fibroid gave the impression. A huge fibroid located in the lower uterus 	Laparotomy hysterectomy	leiomyoma of the cervix uteri
10.	Hasan Isa Almajed.(Almajed et al., 2019)	2019	40	<ul style="list-style-type: none"> The Cervix is enlarged and measures about 6.1×7.3 cm on the CT scan. It Appears homogeneous in peripheral air density, Suggestions of polyp/fibroid/mass lesion extending to the vagina 	Cervical Fibroids Resection and Laparotomy	Hyaline degeneration and calcification foci in leiomyoma

pelvis to do dissection. This thing causes not allow for did laparoscopy, except done partial enucleation and morcellation more formerly (Abu Hashim et al., 2020). Research by Bidzinski et al, where there is a woman 48 years old primiparous with a cervical myoma diameter of 10 cm is done total abdominal hysterectomy. Size myoma, age of the patient, parity, plan reproduction in Century front, as well as skill expert surgery is the reason, they choose to do laparotomy hysterectomy compared to laparoscopy (Bidziński et al., 2015). All types of uterine leiomyoma can be done through laparoscopy. However, laparoscopy in the case of myoma cervix needs attention special. Difficulty sewing, risk bleeding as well as related myoma with surrounding organs as bladder urinary and rectum become difficulty did laparoscopy. Although laparoscopy myomectomy and hysterectomy are the choice best in operation myoma cervical. There are several considerations for laparoscopy that as location, size of myoma, and many whether bleeding. Myoma's great service can be lifted with enucleation and morcellation, however, base wounds after enucleation are difficult to sew. Bleeding that covers view

eye doctor surgery could disturb and hinder did sewing so that allows for occurring damage During sewing (Patel et al., 2011).

Total laparoscopy hysterectomy was usually worn for case cancer cervical. However, could also carry out in the case of myoma cervical with a level more trouble high. Although so, total laparoscopy hysterectomy is difficult done if there is wide adhesion and size big leiomyoma (Nakayama et al., 2017) which may be necessary when performing total laparoscopic hysterectomy (TLH). Matsuoka et al used the procedure laparoscopy myomectomy in 16 cases of cervical myoma with an average weight myoma of 208 grams (Matsuoka et al., 2010). There are also reports of cases of cervical myoma weighing 800 grams, done operation laparoscopy for rupture myoma cervix with morcellator (Garzon-Lopez et al., 2015). There is one reported case of cervical fibroids carried out operation combination namely vaginal myomectomy and laparoscopy hysterectomy (Lee et al., 2019). The diagnosis of cervical fibroids is not always easy sometimes misdiagnosis occurs, on examination beginning with abdominal CECT is diagnosed as a large adnexal tumor but after laparotomy exploration, the

diagnosis is cervical fibroids (Kavita Khoiwal, Amrita Gaurav, Payal kumari, Anupna Kumari, 2019).

CONCLUSION

Choice surgery on cervical leiomyoma requires many considerations, including size myoma, location myoma, adhesions with surrounding organs, and experiences from expert surgery. Operation laparotomy myomectomy and hysterectomy become a choice in case of this. Size myoma is large and located myoma the posterior cervix and the existence of adhesions to the bladder is the reason did laparotomy compared to laparoscopy. At laparotomy myomectomy, bleeding could with fast overcome. While in laparoscopy, in addition to bleeding being difficult to overcome, also eat time long enough to do the operation.

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Informed Consent: Written informed consent to publish this case report was obtained from the patient herself.

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