



A CASE REPORT OF SURGICAL MANAGEMENT 2.29 KG INTRAMURAL LEIOMYOMA UTERUS

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ABSTRACT

Uterine fibroids vary by location and attachment. Intramural are embedded in the uterine wall, most common. Sub mucosal are under the inner lining of the uterus. Subserosal are below the outer surface lining, may grow large into the pelvis. Pedunculated are rare, attached with a stalk to the uterus, resembling a mushroom. Intramural leiomyomas often presenting with symptoms such as pelvic pain, pressure symptoms and abnormal uterine bleeding. Surgical management remains a common approach for symptomatic patients.

KEYWORDS : Covidien IMPACT FORCETRIAD FT10, Huge Fibroid uterus, Hysterectomy

INTRODUCTION

Uterine fibroids, benign growths from uterine muscle tissue, also known as leiomyomas or myomas, are most common growth found in women's pelvis. They vary in size, shape, and location, ranging from small pea-sized to large ones over 5 to 6 inches wide, sometimes filling the pelvis or abdomen. Fibroids can remain small for a long time and then grow rapidly or slowly over years. More common in women aged 30 to 50; they can occur at any age and may run in families. While rarely cancerous, rapid growth or post-menopausal growth warrants immediate evaluation¹.

In this case report we have discussed a 36 year old female who initially presented with symptoms of pressure, pain and heaviness. After a definitive diagnosis intramural Leiomyomas, underwent successful surgical intervention resulting in symptom relief and favorable postoperative outcomes.

Case Presentation

This case reviews the management of 36 year old female who presented on 19/03/2024 with complaint of -

- Continue heavy period since 1 month 10 days,
- Heavy period with passing of clots for the first 3 days in every cycle since 8 months,
- Hard like structure in lower abdomen and pain with ghabhraman while pressing, sleep straight it since 4 month,
- Increased frequency of micturation since past 6 months,
- Increased frequency of stool specifically in morning around 3-4 times since last 2 month.

Obstetric history- she had 2 full term normal vaginal deliveries with last delivery 13 years ago (Gravida-2, Term-2, Preterm-0, Abortion-0, living-2).

Her past medical history revealed that the patient had on and off fever episodes since last 6 month and taking 250mg tablet paracetamol for that.

Her family history suggestive of her father having type 2 diabetes and hypertension.

A physical examination revealed that the patient was well oriented to time, place and person.

Tongue, nail and conjunctiva were pink, no sign of odema, cyanosis, clubbing, icterus, pulse rate of 82/minute in the right radial artery and blood pressure of 116/78 mmHg as measured in the right brachial artery in sitting position. Unremarkable cardiovascular and respiratory assessment.

Her abdomen was grossly distended up to the epigastric region and tense, with no flank fullness. On percussion, dullness was heard. On palpation, the mass was found to be non-tender, mobile and of pelvic origin, corresponding to up to 24-26 weeks of uterine size. Per speculum examination was suggestive of a normal, otherwise healthy looking cervix. Bimanual examination reveals a non-tender firm mass occupying pelvis. The uterus was not separately palpable from the mass.

As per the findings a presumptive diagnosis of pelvic mass and discussed with the patients and her relatives. The patient expressed her desire for definitive diagnosis and treatment so pre-operative profile along with detail abdominal & pelvic ultrasonography was ordered.

Her blood investigations revealed Hb = 8.1 gm/dl, WBC = 6,900/cmm, platelets= 3, 99,000/cmm and B positive blood group. RBS-120mg/dl. Urine routine micro was not suggestive of any abnormality. Serum creatinine = 0.6 mg/dl, SGPT = 27.6 U/L, HIV, HBsAg = non reactive.

Ultrasonography report was suggestive of uterus grossly bulky in size. It measures 20.7 x 18.7 x 11.8 cm. There is evidence of large mixed echoic heterogenous lesions is noted in uterus, measuring 13.3 x 6.8 x 8.8 cm in size. Endometrium is not well identified due to the lesions. Both ovaries were not separately seen. No evidence of free fluid or mass in Pouch of Douglas. No evidence of adenexal mass. Grossly bulky uterus with large heterogenous mixed echoic uterine lesion -? Fibroid.

A decision of laparotomy assisted hysterectomy was discussed with the patient and consent was taken. As patient had concern regarding operative site hernia, she did not want vertical abdominal incision. So patient was taken in confidence that Pfannenstiel incision will be done. Physician opinion was taken for pre operative fitness. Due to low Hb = 8.1 gm/dl, 2 PCV were advised to be given intra-operatively.

A pre-operatively prepared patient was shifted to the operation theatre and bladder catheterised. Spinal anaesthesia was given and painting with drapping was done. Pfannenstiel incision was given, abdomen opened in layers. Huge mass seen in abdomen which was difficult to remove; due to elasticity of abdominal tissue, mass was removed through incision and it turned out to be huge fibroid uterus (Image 1). Uterus was caught with straight clamp from cornual end on both sides; bilateral round ligaments, fallopian tubes & ovarian ligaments caught, ligated and cut using Valley Lab Covidean Ligasure IMPACT (Image 2a, 2b) on ForceTriad

FT10 platform (Image 3). After skeletonization on vessels, bilateral uterine vessels caught, ligated and cut using Valley Lab Covidean Ligasure IMPACT on ForceTriad FT10 platform. Multiple Endometriotic spots were present over uterosacral ligaments; fulguration was done using Covidien Monopolar pencil on ForceTriad FT10 Platform. Bilateral uterosacral and transverse cervical ligament caught, ligated and cut using Valley Lab Covidean Ligasure IMPACT on ForceTriad FT10 platform. Due to collected blood coming out of the uterus (Retrograde bleeding) decided to do subtotal hysterectomy at first to free up space to work, after that complete excision of cervix was done. Huge fibroid uterus with bilateral fallopian tubes removed (Image 4a). The vaginal vault was closed in continuous interlocking manner using PDS suture. Haemostasis was checked and abdomen was closed in layers using PDS suture. Running subcuticular skin closure was done using Monofilament PGA suture. Sterile dressing was done.

Haemo-dynamically stable patient was shifted to post operative ward and the specimen sent for histopathological examination. The mass was weighed and found to be of 2.29 kg (Image 4b).

Post operatively it was observed that the patient was relieved of the pressure symptoms, pain while sleep straight and ghabhraman. Patient was discharged after 30 hours post operative. She had passed urine and stool before discharge.

The Pathological Analysis

Gross Examination - The specimen consisted of uterus and cervix measuring 12 x 10 x 6cm. On cutting open Endometrium appears to be unremarkable. Cut surface of myometrium shows multiple intramural masses of ranging from 0.5 x 0.5 x 0.5 cm to 15 x 10 x 10 cm. which on cut surface shows whorled appearance. Both side fallopian tubes were unremarkable.

Microscopic Examination - Sections from Endomyometrium show endometrial glands in proliferative phase with loose stroma. There is no evidence of endometritis or malignancy. Sections from multiple intramural masses show features of interlacing fibers of smooth muscle cell - suggestive of Intramural Leiomyomas with no evidence of malignancy. Sections from Cervix show features of chronic non specific cervicitis with no evidence of malignancy. Sections from Both Fallopian tube show no remarkable pathology with any evidence of malignancy.



On follow up day 7, surgical stitch line found to be very healthy.

DISCUSSION

Around 20% of women aged 30 have fibroids in their uterus, with half of them showing no symptoms. Symptomatic cases are estimated to occur in about 3% of hospital outpatient visits, with a higher incidence among Caucasian (70%) compared to African-American women (80%). In Indian women 37.65% in rural area, 24% in urban area.

Ultrasonography is the preferred method for detecting and evaluating uterine fibroids. Fibroids are typically intramural but can also be sub mucosal or subserosal. They appear on ultra sonograms as solid masses with variable echogenicity,

causing acoustic shadowing. Small fibroids may only cause a bulge in the uterine contour. They can obstruct the uterine canal, leading to fluid accumulation. Fibroids may displace the endometrial stripe and exhibit calcifications with sharp shadowing. Diffuse leiomyomatosis manifests as an enlarged uterus with abnormal echogenicity².

Fibroids, benign tumors in the uterus, can manifest with various symptoms due to their compression effects, such as urinary retention, frequent urination, urine leakage, and constipation. Particularly, fibroids located in the posterior wall or cervix may protrude into the pouch of Douglas, causing additional complications like dyspareunia, pressure sensations, and rectal discomfort³.

Diagnosing these fibroids can be challenging as they can mimic ovarian masses and other conditions affecting the pouch of Douglas, including endometriosis, dermoids, and tumors of the gastrointestinal tract. Surgical management of fibroids is complex and requires caution to prevent damage to the bowels and ureters⁴.

Occasionally, fibroids can undergo degeneration due to inadequate blood supply, resulting in severe pain ranging from dull aches to intense cramping, often exacerbated during menstruation. This degeneration process, most commonly hyaline, can be identified through imaging techniques like MRI, showcasing diverse appearances such as cystic, red, or calcific changes. Even small fibroids can undergo degeneration, leading to symptoms such as pelvic pain, fever, heavy menstrual bleeding, and sensations of pelvic pressure, sometimes misinterpreted as conditions like sub acute salpingo-oophoritis. Early detection and management are crucial for effectively addressing fibroid-related issues and preventing complications⁵.

This case highlights the importance of surgical management in patients with symptomatic intramural leiomyomas. Prompt diagnosis, appropriate surgical intervention, and thorough pathological analysis are essential for successful outcomes. In our case, the patient experienced significant symptom relief postoperatively, emphasizing the efficacy of surgical resection in managing huge intramural leiomyomas.

CONCLUSION

Surgical management remains a cornerstone in the treatment of symptomatic intramural leiomyomas. This case presentation emphasizes the significance of a comprehensive multidisciplinary approach incorporating clinical examination, advanced diagnostic tools, surgical expertise, advanced surgical equipments, histopathological analysis and postoperative care to ensure favorable outcomes for patients with this condition.



Image 1: Intraoperative Picture Of Huge Fibroid Uterus.

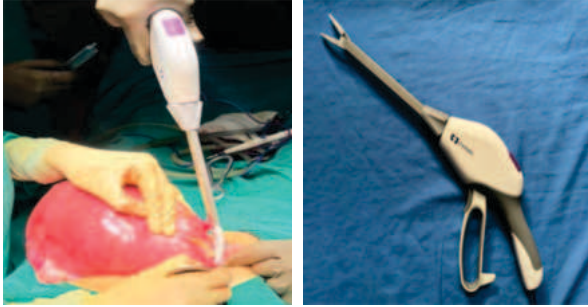


Image 2a & 2b: Right Round Ligaments, Fallopian Tubes & Ovarian Ligaments Caught, Ligated And Cut Using Valley Lab Covidean Ligasure Impact.



Image 3: Forcetriad FT10 Platform.



Image 4a & 4b: Gross Specimen Of Uterus With Huge Fibroid & Bilateral Fallopian Tubes, Weight Around 2.29 Kg.

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