

Fibroid Uterus: A Case Study

ABSTRACT

Uterine fibroids (leiomyomas) are benign smooth muscle tumour that arises within the uterus. By age of 50, 60% of all women will have at least one uterine leiomyoma. The cause of leiomyoma is unknown. They depend on ovarian hormones; because they grow slowly during the reproductive years and undergo atrophy after menopause.

KEYWORDS fibroid uterus, leiomyomas, hysterectomy, myomectomy, gonadotrophin releasing hormone, dysmenorrhoea, infertility, miscarriage

INTRODUCTION

Fibroid uterus is the commonest benign tumour of female genital tract. The tumour is composed of smooth muscle and fibrous connective tissue, so named as leiomyoma or fibromyoma¹. It is common in nullipara woman. The prevalence is highest between 35 to 45 years. The Fibroid may affect the reproductive outcome adversely by enlargement and distortion of the uterus or poor endometrial vascularity. The Fibroids develop due to proliferation of smooth muscle cells. The tumors usually grow very slowly, about 1–2 cm per year. Fibroids are estrogen dependent and this grew rapidly during pregnancy. They do not occur before menarche and growth cessation occurs after menopause². This case study was taken at Sree Balaji Medical College and Hospital, Chrompet, Chennai.

Incidence

- This incidence of fibroid uterus is about 3% in Indian women.
- Fibroids occur more often in nulliparous women or those women who have secondary infertility problems.
- Higher incidence is seen in obese women and woman with the history of long term use of oral contraceptive pills².

Types of fibroids

There are three common types of fibroids.

1. Interstitial or intramural fibroids (75%): In this type, fibroids grow with in the myometrium [Muscular layer of the uterus].
2. Subserous or sub peritoneal fibroids (15%): These are Intramural fibroids that are pushed outwards towards the peritoneal cavity. They are partially or completely covered by peritoneum. If the fibroid has a pedicle, it is called pedunculated submucosa fibroid.
3. Submucosal fibroids (5%): The tumour protrudes into the uterine cavity and underneath the endometrium, which is called submucosal fibroid. This can make the uterine cavity irregular and distorted. Pedunculated submucosal fibroid may come out through the cervix¹.

PATHOLOGY

The uterus is enlarged; the shape is distorted by multiple nodular growths of varying sizes. Occasionally, there may be uniform enlargement of uterus by a single fibroid. The cut surface of the uterus is smooth and whitish, the tumour consists of smooth muscles and fibrous connective tissues of varying proportion. Originally it consists if only muscle but later on fibrous tissue

ISSN No	2230-7885
CODEN	JPB SCT
NLM Title	J Pharm Biomed Sci
DOI	https://doi.org/10.20936/JPBMS/170204

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Article citation: Sarathi S.

Fibroid uterus: a case study.
J Pharm Biomed Sci 2017;07(2): 37–39.

Available at www.jpbums.info

Statement of originality of work: The manuscript has been read and approved by all the authors, the requirements for authorship have been met, and that each author believes that the manuscript represents honest and original work.

Source of funding: None.

Competing interest/Conflict of interest: The author(s) have no competing interests for financial support, publication of this research, patents, and royalties through this collaborative research. All authors were equally involved in discussed research work. There is no financial conflict with the subject matter discussed in the manuscript.

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intermingle with the muscle bundle which is called myomata or fibromyomata³.

Risk factors

- Nulli parous women⁴
- Obesity
- Black women
- Multi parity⁵

Case study of Mrs. X

Mrs. X 40 years old admitted with the complaints of severe abdominal pain and descend of the uterus into the vagina, dysmenorrhea and complaints of heavy bleeding, ultra sound scan was taken, she is diagnosed to have multiple uterine fibroid.

Investigation

The ultra sound abdominal report was taken on 29/12/2016. The result of the report was the following.

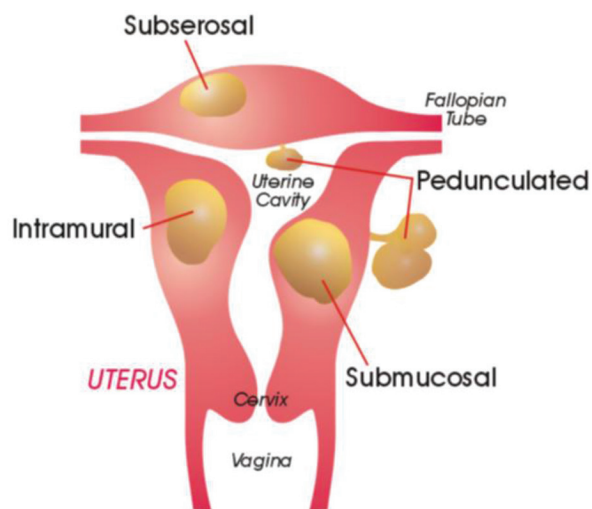


Fig. 1 Types of fibroid uterus (Source: www.fibroids.co.in).



Fig. 2 Cross-section of fibroid uterus (Source: www.museumof-healthcare.in).

Uterus

- It appears bulky, measures $14.0 \times 10.9 \times 8.0$ cm antverted.
- Multiple fibroid noted anterior and posterior wall of uterus; largest measuring 5.4×4.5 cm in the anterior wall.
- Endometrial cavity is distorted.

Medical management

Hormonal therapy may be used as a short term intervention to decrease the size of fibroid and minimize blood loss. The common drugs used to treat fibroid uterus are Antifibrinolytics, Anti Progesterone, (Tab.Danazol), Gonadotrophin releasing hormone (GnRH) analogs and Prostaglandin synthetic inhibitors⁷.

- Surgical management Hysteroscope and laser resection was used to remove the small tumours.
- Myomectomy (removal of tumour and surrounding tissues) to remove submucosal fibroid for women who desire for further child bearing.

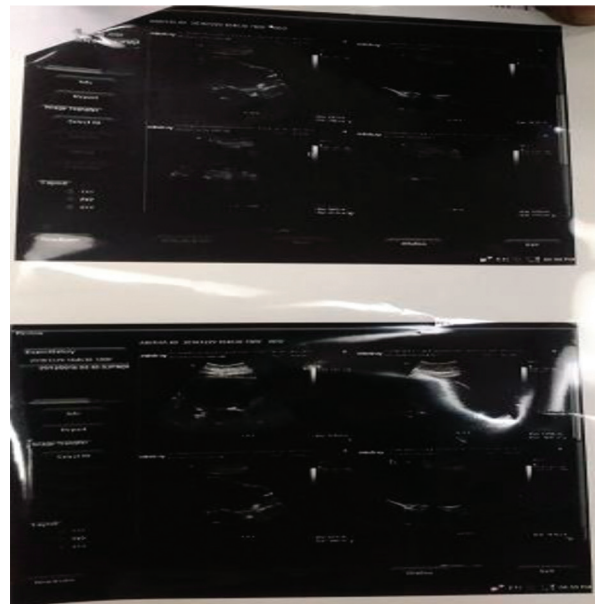


Fig. 3 Ultra sound images of fibroid uterus (Source: Ultra sound scan image of Mrs. X taken at Sree Balaji Medical College and Hospital).

Signs and symptoms

Book picture	Patient picture
• Menorrhagia (menstrual loss)	She complains of heavy bleeding during menstruation for past 3 year
• Metrorrgia (irregular bleeding)	She had irregular menstrual cycle for 3 year (37 days cycle)
• Dysmenorrhea [6]	Complaints of severe abdominal pain during each menstruation
• Lower abdominal pain	Presence of lower abdominal pain

- Hysterectomy (Removal of uterus) for women who do not desire further pregnancies and tumours which are large².

Complications

- Degenerations
- Haemorrhage
- Infection
- Necrosis
- Polycythemia due to erythropoietic function by the tumour.
- Infertility is seen about 30% of Women.
- Recurrent pregnancy loss (Miscarriage) or Pre Term Labour⁹.

Nursing management

- Abnormal uterine bleeding related increased endometrial surface area caused by fibroid uterus.
- Assess the pattern of menstrual cycle, hormonal therapy to reduce blood loss, Iron rich supplements to prevent anaemia and monitoring the weight Pain related to infection, twisting of pedicle from which the tumour is growing or Devascularisation and blood vessel compression by growing uterus.

Assess severity of pain; provide comfortable environment and warm reassurance. Administer analgesics, identify the type of fibroid, medical or surgical treatment should be given to relieve pain associated with fibroid uterus⁹.

CONCLUSION

Fibroid uterus is increasing the risk of infertility, Miscarriage (abortion) or preterm labour. Hence early diagnosis and treatment is required according to the size of fibroid and women's desire for further pregnancy. Delivery may be unaffected but postpartum haemorrhage (excessive blood loss) may occur due to atonicity (lack of uterine muscle contraction) of the uterus. Hence, Health care Professionals must take precautions during labour and post partum period to avoid complications and restore the reproductive health of the women¹⁰.

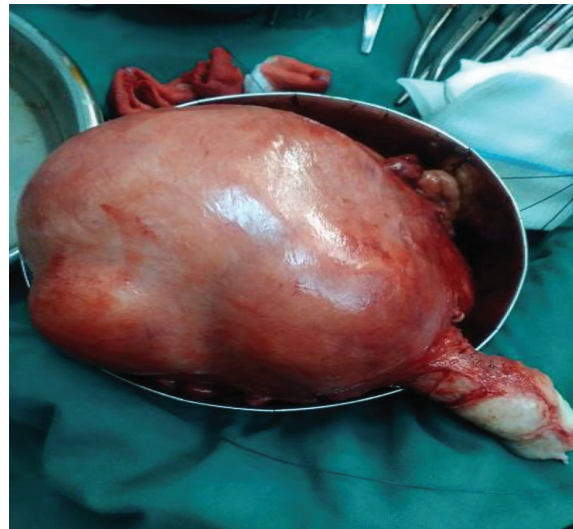


Fig. 4 Removed fibroid uterus.

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