ORIGINAL RESEARCH PAPER

Radio-Diagnosis

# BROADLIGAMENT FIBROID TORSION A RARE CASE

**KEY WORDS:** Broad ligament fibroid, fibroid torsion, acute abdomen, MRI pelvis.

**Abdul Ansari Ghani A** — Junior Resident, Department of Radiology, Sri Siddhartha Academy of Higher Education, Tumkur – 572107, Karnataka, India.

**Siva Abisheak** — Junior Resident, Department of Radiology, Sri Siddhartha Academy of Higher Education, Tumkur – 572107, Karnataka, India.

**Viharika Pavuluri** — Junior Resident, Department of Radiology, Sri Siddhartha Academy of Higher Education, Tumkur – 572107, Karnataka, India.

**Praveen Ramegowda** — Senior Resident, Department of Radiology, Sri Siddhartha Academy of Higher Education, Tumkur – 572107, Karnataka, India.

**Mohan S** — Assistant Professor, Department of Radiology, Sri Siddhartha Academy of Higher Education, Tumkur – 572107, Karnataka, India.

**Anand S H.** — Professor and HOD, Department of Radiology, Sri Siddhartha Academy of Higher Education, Tumkur – 572107, Karnataka, India.

**ABSTRACT**

Broad ligament fibroid is an unusual type of uterine fibroids which grows in the broad ligament and can be difficult to diagnose because of its extrauterine nature and similarity with adnexal masses. Fibroid torsion of a broad ligament is an extremely infrequent complication, and it may present acute abdomen with the imaging that is very similar to other gynecological emergencies (torsion of ovaries or ruptured cysts). In the given case a female patient arrived with acute discomfort in the lower abdomen. According to the results of the MRI, a clearly defined mass of the right adnexa was observed in the qualitative terms of the signal and suffered inflammatory changes. During the operation, it was confirmed that she had a fibroid that was intra uterine (lying broad ligament which was mildly discoloured or whitish in colour consistent with torsion). Early surgical treatment mitigated the symptoms and proved the diagnosis. This case reinstates the role of radiological investigations, especially the MRI, in the preliminary evaluation of complicated pelvic masses and also creates the need that rare presentations of conditions like the torsed broad ligament fibroids should be clinically aware and oriented that may lead to prompt treatment.

## 1. INTRODUCTION

Fibroids, or, to be more exact, leiomyomas, are frequent benign tumors in the smooth muscle of the uterus. Although it is common to find them everywhere in the uterus material (intramular), below the endometrium (submucosal), or on the exterior of the uterus (subserosal), the uttermost rare site to find an occurrence of a growth of this nature is on the broad ligament. Broad ligament fibroids grow out of smooth muscle fibers found in the broad ligament, and when it appears unattached, it may result in a diagnostic and a surgical dilemma because of their strange location in the pelvis and their ability to resemble other masses in the pelvis. The torsion of broad ligament fibroid is an extremely rare occurrence that can show symptoms resembling other gynecologic life-threatening conditions, like the torsion of ovary or ruptured cysts, such as acute abdominal pain. It is imperative to identify it on time and surgically treat it to prevent additional complications such as necrosis or peritonitis. This report illustrates a unique occurrence of torsion of a broad ligament fibroid, noting on the clinical presentation, diagnosis challenges, and treatment of the condition.

The most frequent benign neoplasm on the uterus and the female genital tract is leiomyoma. It may either be intrauterine or extrauterine. The most common kind to occur among the extra uterine fibroids is the broad ligament fibroids although the dilute rate is incredibly low at <1 % It is of two types primary- Originates in the broad ligament itself; false- originated by the uterus but grows laterally between the two layers of the broad ligament.

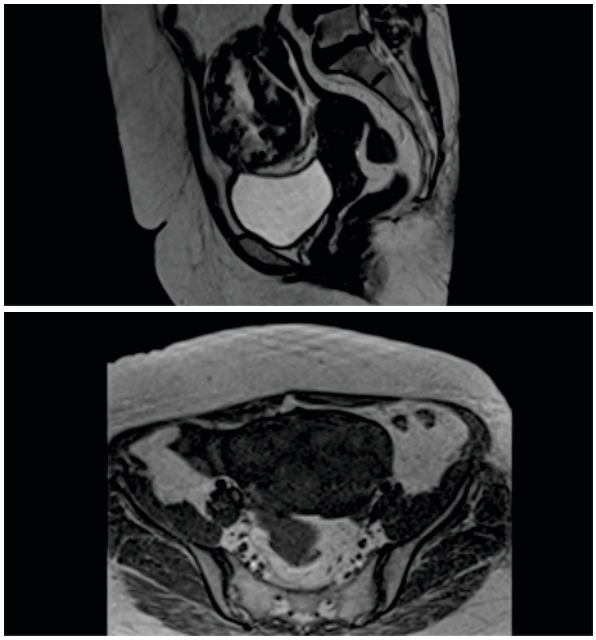
## 2. Research Objectives

- To discuss and evaluate the radiological imaging findings of broad ligament fibroid in MRI pelvis and to provide differential diagnosis, to aid in appropriate management and improve patient outcomes.
- The aim to is provide MRI findings that enabled the development of diagnosis of one case of broad ligament fibroid with possible torsion.

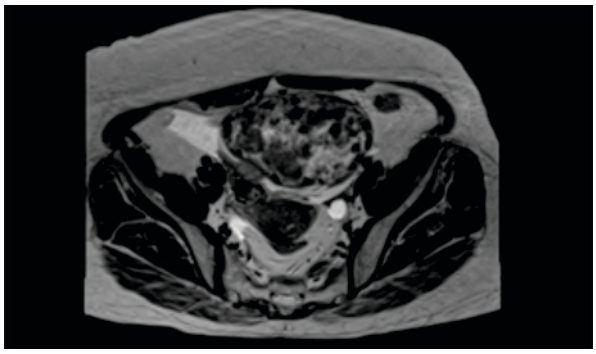
## 3. Case Study

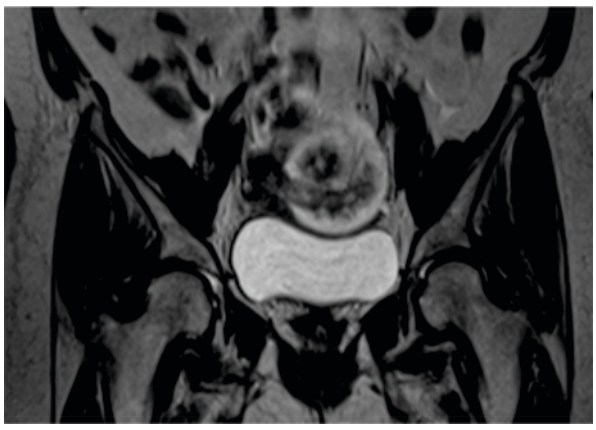
### 3.1. Imaging Findings

Patient came with complaints of sudden onset of acute lower abdominal pain.

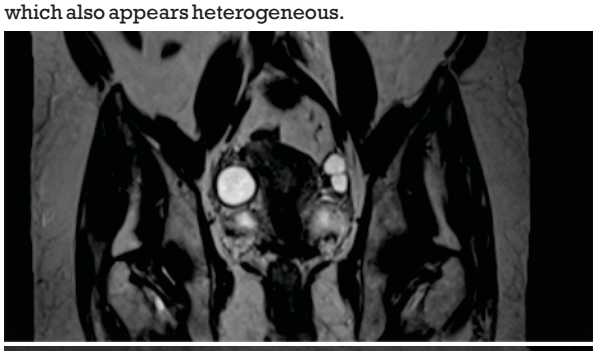


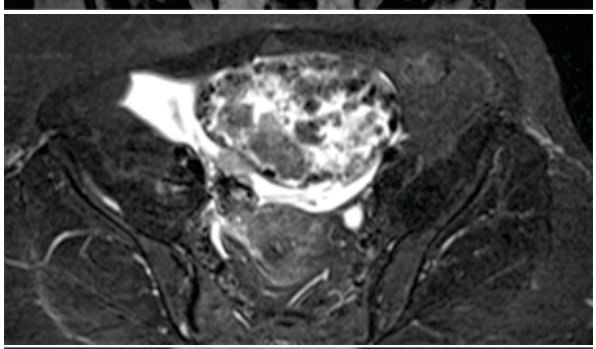
A well-defined lesion was noted in the midline of the uterus, measuring 6.8 x 10.3 x 9.7 cm. It was T1 hypointense, T2 hetero-intense and appeared to arise from the right adnexa.

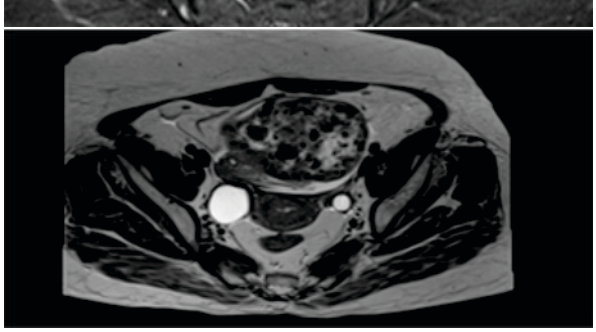


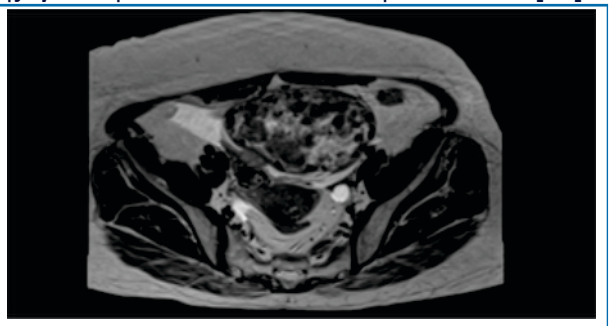


The yellow arrowhead represents the pedicle of the fibroid which also appears heterogeneous.





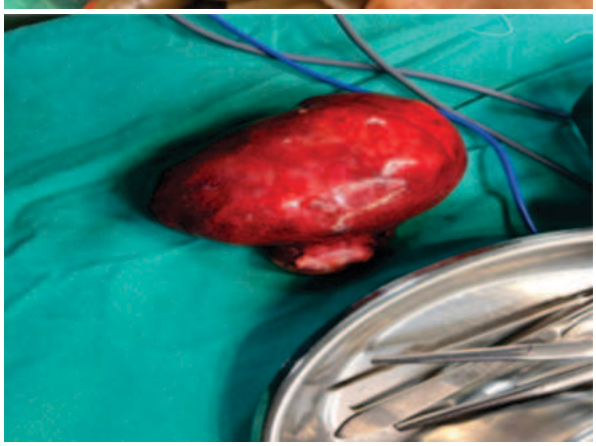




Minimal free fluid with surrounding areas of STIR hyperintensity, was present in the pelvic cavity around the lesion. Right ovary was visualized separately from the lesion.

Right Ovarian Cyst: A simple cyst in the right ovary showing T1 hypo-intensity and T2 hyper-intensity signals.

### 3.2. Inoperative Findings



A right adnexal mass was identified, visualized distinctly separate from the uterus. The right ovary showed a cyst adherent to the mass, and the pedicle was noted to be mildly discoloured, suggesting possible torsion.

## 4. CONCLUSION

MRI findings were consistent with a broad ligament fibroid, likely responsible for the patient's sudden onset of acute abdominal pain. Surgical evaluation and further management were advised to address the fibroid and relieve the symptoms. The MRI characteristics, along with intraoperative findings, confirmed the presence of a broad ligament fibroid

originating from the right adnexa, accompanied by surrounding inflammation—suggestive of possible torsion.

## REFERENCES


[1] Verma K, Kumari S. A Rare Case of Broad Ligament Fibroid: A Case Report. J South Asian Feder Menopause Soc 2019;4(1):37–41
[2] Kumar P, Malhotra N. Jeffcoate's Principles of Gynaecology,New Delhi: Jaypee Brothers; 2008. p. 492.
[3] Jeffcoate N. Tumors of corpus uteri. In: ed. N. Batla ed. Jeffcoate's Principles of Gynaecology,Delhi: Arnold Publication; 2001. pp. 466–497.
[4] Neha G, Manisha L. A Rare Case of Giant Broad Ligament Fibroid with Cervical Fibroid Mimicking Ovarian Tumour. Int J Recent Trends Sci Technol 2014;10:208–209.
[5] Thor AD, Young RH, et al. Pathology of fallopian tube, broad ligament, peritoneum and pelvic soft tissues. Hum Pathol 1991;22:856–867. DOI: 10.1016/0046-8177(91)90174-N.
[6] Stewart EA. Uterine Fibroids. Lancet 2001;357:293–298. DOI: 10.1016/S0140-6736(00)03622-9
[7] Rajput, D. A., & Gedam, J. K. (2015). Broad ligament fibroid: a case series. IJSS Case Rep Rev, 1(11), 8-11.
[8] Verma, K., & Kumari, S. (2019). A rare case of broad ligament fibroid: a case report. J South Asian Feder Menopause Soc, 4, 37-41.
[9] Dulewad, S., & Chandak, P. (2019). A case report on broad ligament fibroid mistaken as pregnancy. International Journal of Reproduction, Contraception, Obstetrics and Gynecology, 8(11), 4573-4576.
[10] Bakari, F., Sulayman, H. U., Avidime, S., Ameh, N., & Adesiyun, A. G. (2015). Huge broad ligament leiomyoma: a case report. Case reports in clinical medicine, 4(2), 55-59.