

Parasitic Leiomyoma in Pregnancy

Oreekha Amin¹, Maria Tariq², Bushra Kant³

Received on: 08 June 2022; Accepted on: 20 September 2022; Published on: 31 January 2023

ABSTRACT

Aim and background: Parasitic leiomyoma is an extremely rare variant of uterine leiomyoma occurring outside the uterus. The majority of the patients with uterine leiomyoma are asymptomatic. However, it may present with vague symptoms.

Case description: We present a case report of parasitic leiomyoma in a 39-year-old pregnant woman at 38 + 6 weeks who presented with a complaint of discomfort in the lower abdomen. On abdominal ultrasound, there was a large mass measuring about 12.7 cm × 9.6 cm × 13.6 cm in the anterior wall of the uterus in the lower uterine segment on the right side, abutting and indenting the posterior wall of the urinary bladder. During cesarean section, the growth was noted to be hooked to the dome of the bladder instead of the uterus. Histopathological examination confirmed the diagnosis of parasitic leiomyoma.

Clinical significance: Although, parasitic leiomyoma is an infrequent subtype of uterine leiomyoma, we report a challenging case of parasitic leiomyoma with all its particularities.

Keywords: Cesarean section, Parasitic leiomyoma, Pregnancy.

Journal of South Asian Federation of Obstetrics and Gynaecology (2022): 10.5005/jp-journals-10006-2142

BACKGROUND

Uterine leiomyoma is the most familiar benign tumor of the reproductive age woman, with an incidence of 70%.¹ At times, a stalked sub-serous leiomyoma delinks entirely from the uterus and attains a secondary site within the abdomen, familiarized as parasitic leiomyoma as it gets on its blood supply from close by vessels. Further, the formation of parasitic leiomyoma is linked to a former history of morcellation of leiomyoma during laparoscopic procedures. However, few may not necessarily have previous myomectomy or hysterectomy, or any other uterine surgery. A recent review reported that 56% (154/274) of patients with parasitic leiomyoma had no history of previous uterine surgery. The anterior abdominal wall localization was found only in 12 of the 274.² The complete surgical resection of a parasitic leiomyoma is the ultimate management required. However, due to its unusual anatomical location, the diagnosis becomes difficult. Moreover, the most important issue is to determine the exact number and location along with its blood supply origin for safe resection. We hereby report a very challenging case of parasitic leiomyoma in the term gravid uterus with all its peculiarities without a history of previous surgeries.

CASE DESCRIPTION

A 39-year-old pregnant woman with gravida 3 para 2 at 38 + 3 weeks of gestational with previous normal vaginal deliveries presented to the obstetric clinic with mild constant lower abdominal discomfort/pain of 2 weeks duration. She did not need to take any analgesics for pain relief and was tolerating it well. There were no associated gastrointestinal symptoms, or respiratory difficulties and no comorbidities. Her antenatal period was unremarkable. She had no history of previous surgery. On examination, blood pressure was 140/90 mm Hg, pulse was 80/minute, respiratory rate of 20 breath/minute, mild pallor, and afebrile. The abdomen was protuberant and non-tender with a fundal height of 38 cm and without any uterus contractions. However, a firm non-tender slightly mobile

¹⁻³Department of Obstetrics and Gynecology, Dr. Akbar Niazi Teaching Hospital, Islamabad, Pakistan

Corresponding Author: Oreekha Amin, Department of Obstetrics and Gynecology, Dr. Akbar Niazi Teaching Hospital, Islamabad, Pakistan, Phone: +92 3335677742, e-mail: oreekha@gmail.com

How to cite this article: Amin O, Tariq M, Kant B. Parasitic Leiomyoma in Pregnancy. *J South Asian Feder Obst Gynae* 2022;14(6):750–752.

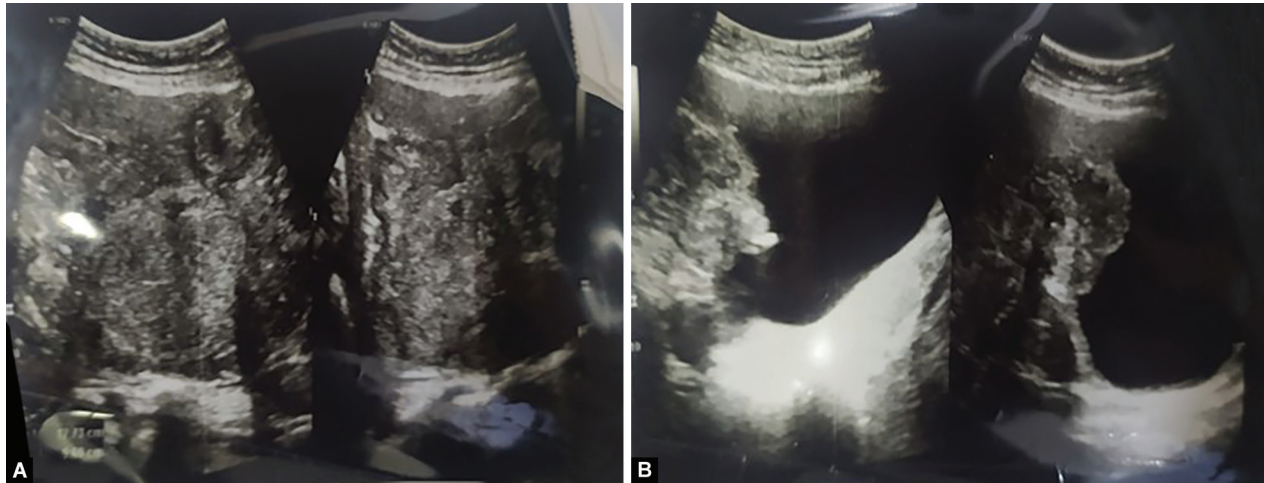
Source of support: Nil

Conflict of interest: None

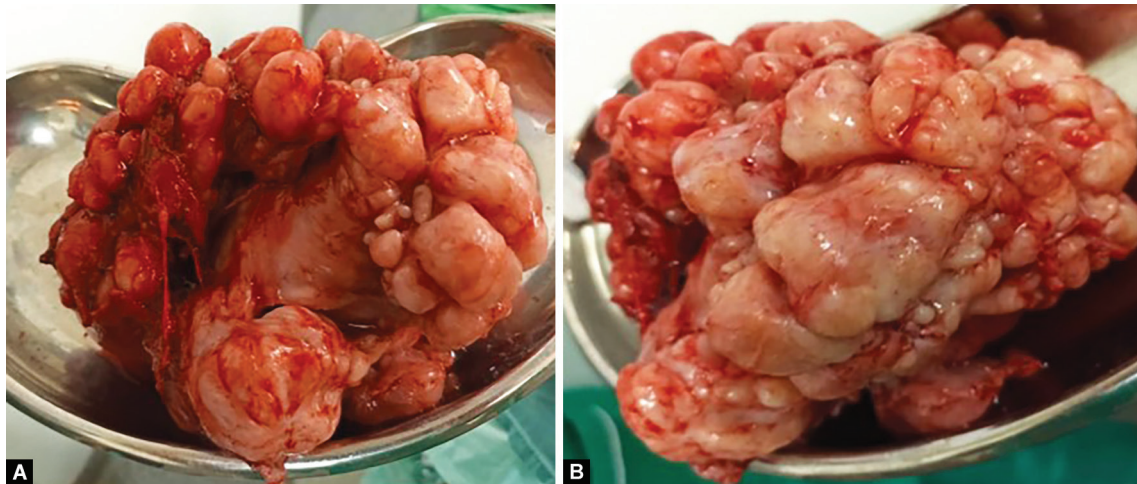
mass separate from the gravid uterus was palpable in the lower abdomen. On vaginal examination, the cervix was closed and full length, average in consistency, and membranes were intact.

Her blood group was O positive and her complete blood count was normal as follows: WBC, 10,980/mm³; hemoglobin, 12.2 gm/dL; and platelet 160,000/mm³. Random blood sugar was 112. Routine urine examination, electrolytes, urea, creatinine, and liver function tests were all normal. Chest X-ray and electrocardiogram (ECG) were normal. Abdominopelvic ultrasound scan showed a single alive intrauterine pregnancy of 38 + 1 weeks with breech presentation. It also showed a large mass measuring 12.7 cm × 9.6 cm × 13.6 cm in the anterior wall of the uterus in the lower segment on the right side (Fig. 1). The mass was well separated from the placenta, abutting and indenting the posterior wall of the urinary bladder. A minimal amount of color flow was noted on the Doppler ultrasound. Cervix is not separately visualized.

Anesthesia consultation and preoperative preparation were done along with obtaining high-risk consent for elective cesarean. Alive male baby weight 3.1 kg with Apgar score of 8/10, 9/10 delivered as extended breech, followed by delivery of placenta and membranes. Moreover, a small 2 cm × 3 cm subserosal leiomyoma was noted on the anterior wall of the uterus. Another growth was noted on the dome of the bladder, which was not attached to the uterus. It was about 10 cm × 12 cm multi-lobulated firm to hard in



Figs 1A and B: Ultrasound images of parasitic leiomyoma (A) Coronal view; (B) Sagittal view



Figs 2A and B: Gross view of parasitic leiomyoma (A) Transverse view; (B) Longitudinal view

consistency, irregular cystic cum solid mass. A multidisciplinary approach was used and a urologist was involved. Growth was resected which was deeply adherent to the bladder muscle layer followed by bladder repair. One unit packed cells were transfused postoperatively. Postoperative good care was given and she was kept catheterized for 2 weeks.

On histopathology, a large firm nodular mass measuring 13 cm × 12 cm × 9.5 cm was noted. On the cut section, a yellowish–white tan area measuring 8 cm × 5.5 cm × 5 cm and a few separate small cystic spaces containing mucoid material were noted (Fig. 2). Microscopic description revealed a tumor comprising spindly cells having plump ovoid nuclei and eosinophilic cytoplasm with indistinct cell margins. Areas showing marked degenerative changes were noted. Mitosis was sparse and no abnormal mitotic figures were seen.

DISCUSSION

Leiomyomas are not always limited to the uterus. At times, it is more challenging to clinically and radiologically identify leiomyomas due to unusual growth patterns in an odd location. One of the uncommon presentations includes parasitic leiomyoma, which

is a stalked subserosal fibroid that frees itself from the uterus, and endures its growth through neovascularization from close by tissues. As per The International Federation of Gynecology and Obstetrics (FIGO) classification system, the so-called parasitic leiomyomas have been categorized as type 8 leiomyomas with no myometrial involvement and uterine attachment.³ They may abut or become adherent to nearby structures, like the broad ligament, omentum, retroperitoneal connective tissue, or peritoneum. Further, they are mostly asymptomatic in nature but occasionally become symptomatic depending on their location and changes within the leiomyoma.⁴ The most common symptoms are of lower abdominal pain/discomfort or pressure along with bladder and bowel-related complaints depending upon the degree of compression on these structures. Our patient presented with progressively increasing abdominal discomfort. The asymptomatic nature of this leiomyoma might have contributed to a delay in her presentation and diagnosed during pregnancy as an incidental finding on ultrasound. Measurement of tumor markers such as CA-125 may be done, though they may be falsely elevated. Ultimate management includes excision of the parasitic leiomyoma either laparoscopically or *via* laparotomy, especially in cases of large myomas or suspected malignancy. In our patient, excision was

performed through a laparotomy as the baby also needed to be delivered *via* cesarean. A multidisciplinary approach was used, as myoma was abutting the bladder as per ultrasound findings.

Although most leiomyomas have no effect on pregnancy, they represent one of the most challenging causes of postpartum hemorrhage, which can lead to cesarean hysterectomy. Maternal pain is the most common complication relating to leiomyoma in pregnancy, especially with leiomyoma greater than 5 cm in diameter. Often, it is pertinent to red degeneration or torsion of a pedunculated leiomyoma. Leiomyomas located within the lower uterine segment are especially associated with higher cesarean section rates and retained placentas. Further, myomectomy managed at the time of cesarean section recently proposed to be safe and worthwhile, avoiding leiomyoma removal later on.⁵ Also, in our case, cesarean myomectomy of complicated parasitic leiomyoma was performed safely and successfully with a good outcome.

CONCLUSION

Parasitic leiomyoma is a rare type of uterine leiomyoma, presenting with vague symptoms, especially in pregnancy, and managed by complete resection. However, such pregnancies do pose challenging surgical problems at the time of cesarean sections.

ACKNOWLEDGMENTS

The authors thank their patient for allowing them to report her medical condition.

REFERENCES

1. Giuliani E, As-Sanie S, Marsh EE. Epidemiology and management of uterine fibroids. *Int J Gynaecol Obstet* 2020;149(1):3–9. DOI: 10.1002/ijgo.13102.
2. Lete I, Gonzle J, Ugarte L, et al. Parasitic leiomyomas: A systemic review. *Eur J Obstet Gynecol Reprod Biol* 2016;203:250–259. DOI: 10.1016/j.ejogrb.2016.05.025.
3. Malcolm G, Munro, Hilary OD, et al. The two FIGO systems for normal and abnormal uterine bleeding symptoms and classification of causes of abnormal uterine bleeding in the reproductive years: 2018 revisions. *Int J Gynaecol Obstet* 2018;143(3):393–408. DOI: 10.1002/ijgo.12666.
4. Khan A, Shawl A, Leung PS. Parasitic leiomyoma of the greater omentum presenting as small bowel obstruction. *J Surg Case Rep* 2018;(7):164. DOI: 10.1093/jscr/rjy164.
5. Karan Sampat D, Javid I, Alleemudder. Fibroids in pregnancy: Management and outcomes. *Obstet Gynecol* 2018;20:187–195. DOI: 10.1111/tog.12491.