



RECURRENT MULTIPLE UTERINE FIBROIDS IN A FERTILITY-DESIRING WOMAN: A CASE OF 38 FIBROIDS DETECTED AT OPEN MYOMECTOMY

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ABSTRACT

Uterine leiomyomas are the most common benign tumours of the female reproductive tract and may be associated with heavy menstrual bleeding, anaemia, pelvic symptoms and infertility. Recurrence following myomectomy is well recognised, particularly in women with multiple fibroids. We report the case of a 38-year-old nulligravida with infertility, dysmenorrhoea, heavy menstrual bleeding and recurrent multiple uterine fibroids following two previous laparoscopic myomectomies. Preoperative imaging demonstrated a markedly enlarged uterus with multiple fibroids, with magnetic resonance imaging identifying eight lesions. In view of the recurrent and extensive disease, open fertility-preserving surgery was undertaken. Intraoperatively, 38 fibroids measuring approximately 1–7 cm were identified and removed from the anterior and posterior uterine surfaces. Hysteroscopy demonstrated two submucosal fibroids and an endometrial polyp. Adhesiolysis and left ovarian cystectomy were also performed. Histopathology confirmed leiomyomata, a hemorrhagic ovarian cyst and a benign endometrial polyp. The patient recovered well following surgery. This case highlights the possibility of substantial underestimation of fibroid burden by preoperative imaging and emphasizes individualized surgical planning in women with recurrent, extensive fibroids who desire fertility preservation.

KEYWORDS

Uterine Leiomyoma; Recurrent Fibroids; Multiple Fibroids; Myomectomy; Infertility

1. INTRODUCTION

Uterine leiomyomas, commonly referred to as fibroids, are benign smooth-muscle tumors of the uterus and are among the most common gynecological conditions affecting women of reproductive age. Their clinical presentation varies according to their size, number and location and may include heavy menstrual bleeding, dysmenorrhoea, pelvic pressure, anemia and reproductive dysfunction. The relationship between fibroids and infertility is complex. Submucosal fibroids and intramural fibroids that distort the uterine cavity are more consistently associated with impaired reproductive outcomes, whereas the effect of non-cavity-distorting intramural and subserosal fibroids remains less certain.

Myomectomy is an established fertility-preserving treatment for appropriately selected women with symptomatic fibroids. Depending on the size, number and location of the lesions, myomectomy may be performed hysteroscopically, laparoscopically or through laparotomy.

However, recurrence of fibroids following conservative surgery remains an important clinical issue. Multiple lesions, a large uterus and coexisting pelvic disease have been described among factors associated with recurrence.

The present case is notable because a substantially greater number of fibroids were identified intraoperatively than had been demonstrated on preoperative imaging. It illustrates the challenges involved in managing recurrent, extensive fibroid disease in a woman wishing to preserve fertility.

2. Literature Survey

Fibroids are frequently encountered in women of reproductive age, and their prevalence increases with age. Recent literature emphasizes that their effects on fertility depend substantially on anatomical location and distortion of the uterine cavity.

A 2024 review by Donnez et al. described fibroid-related infertility as a multifactorial problem and highlighted the importance of evaluating fibroid size, number and location when selecting treatment. Surgical management remains an important option in appropriately selected women desiring fertility.

A review comparing international guidelines found that submucosal and cavity-distorting fibroids are the lesions most consistently associated with adverse reproductive outcomes. However, evidence concerning non-cavity-distorting intramural fibroids remains less definitive.

Recurrence after conservative treatment is another important consideration. A recent narrative review identified younger age at first surgery, multiple fibroids, an enlarged uterus, incomplete removal and

coexisting pelvic disease among factors associated with recurrence.

Thus, women with recurrent multiple fibroids require individualized assessment, particularly when fertility preservation is an important objective.

3. Problem Definition

The principal clinical problem in this case was recurrent and extensive uterine fibroid disease in a 38-year-old nulligravida with infertility and significant menstrual symptoms, despite having undergone two previous laparoscopic myomectomies.

The major challenge was accurate assessment of the total fibroid burden. Preoperative imaging demonstrated eight fibroids, whereas extensive intraoperative examination revealed 38 fibroids. The markedly enlarged and distorted uterus, previous surgeries and adhesions further increased the complexity of surgical management.

The clinical objective was therefore to provide definitive treatment for symptomatic recurrent fibroids while preserving the uterus and maintaining the possibility of future fertility.

4. METHODOLOGY/APPROACH

This was a retrospective case report based on the clinical records, imaging findings, operative findings, histopathology and post-operative follow-up of a 38-year-old nulligravida treated in 2024.

The patient had been married for approximately eight years and presented with infertility, heavy menstrual bleeding with clots and dysmenorrhoea. She had undergone two previous myomectomies, including laparoscopic treatment for endometriosis during one of the procedures.

Preoperative ultrasonography demonstrated an enlarged uterus with multiple fibroids. Subsequent magnetic resonance imaging demonstrated a bulky uterus with eight fibroids involving submucosal, intramural and subserosal locations.

Clinical examination revealed a markedly enlarged, hard and irregular uterus measuring approximately 22 weeks in size.

Because of recurrent disease following previous laparoscopic myomectomies and the presence of multiple large fibroids, an open fertility-preserving surgical approach was selected.

Hysteroscopy, polypectomy, endometrial biopsy, complex open myomectomy, adhesiolysis and left ovarian cystectomy were performed.

During surgery, systematic examination of the uterus revealed 38

fibroids, ranging from approximately 1 to 7 cm, involving the anterior and posterior uterine surfaces. Two submucosal fibroids were identified hysteroscopically. An adenomyoma containing chocolate-coloured fluid was also excised.

All excised fibroids and associated specimens were submitted for histopathological examination.

5. RESULTS AND DISCUSSION

5.1 Clinical Findings

The patient was a 38-year-old nulligravida with an approximately eight-year duration of marriage and infertility. She had a history of recurrent uterine fibroids, heavy menstrual bleeding and dysmenorrhoea. She had previously undergone two laparoscopic myomectomies.

The uterus was markedly enlarged and irregular, approximately 22 weeks in size. Significant anemia was present and required perioperative correction with blood transfusion and intravenous iron therapy.

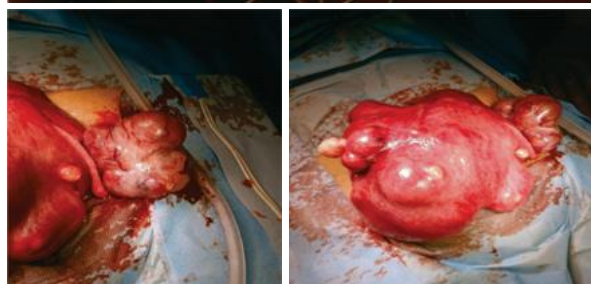
5.2 Imaging Findings

Preoperative imaging demonstrated a bulky uterus with multiple fibroids. Magnetic resonance imaging identified eight fibroids involving different uterine compartments, including submucosal, intramural and subserosal lesions.

However, operative examination demonstrated a much greater number of lesions than identified radiologically.

5.3 Operative Findings

A total of 38 fibroids, ranging from 1 to 7 cm, were identified and removed from the anterior and posterior surfaces of the uterus. The uterus was highly vascular and distorted, with adhesions related to previous surgeries. Adhesiolysis was therefore required. Hysteroscopy demonstrated deviation of the endometrial cavity and two submucosal fibroids. An endometrial polyp was also identified and removed. A multicystic left ovary was noted, and left ovarian cystectomy was performed. The final histopathological examination confirmed leiomyomata, hemorrhagic ovarian cyst and benign endometrial polyp with secretory endometrium.



5.4 Clinical Outcome

The patient required perioperative blood transfusion because of significant anemia and received intravenous ferric carboxymaltose. Postoperatively, she recovered satisfactorily.

At follow-up, the surgical wound was healthy and hemoglobin had improved to 11.5 g/dL. Subsequent imaging demonstrated postoperative changes in the myometrium with normal bilateral ovaries.

5.5 DISCUSSION

The principal finding of this case was the marked difference between the number of fibroids identified on imaging and those detected during surgery. Eight fibroids were demonstrated on MRI, whereas 38 fibroids were identified intraoperatively.

This discrepancy is clinically important because fibroids may vary considerably in size and may be difficult to individually distinguish when numerous lesions coexist within a markedly enlarged and distorted uterus. Previous uterine surgery and adhesions may further alter normal anatomy.

The recurrence of fibroids following two previous myomectomies is also an important feature. Recurrence after conservative surgery is well documented, and multiple fibroids, enlarged uterine size and coexisting pelvic disease have been reported as risk factors.

The presence of submucosal fibroids in this patient is particularly relevant to infertility. Current literature indicates that fibroids that distort the endometrial cavity have a more established association with impaired fertility than non-cavity-distorting lesions.

The choice of open myomectomy in this patient was individualized according to the extensive recurrent disease, large uterine size, previous surgical history and desire for fertility preservation. Recent literature continues to recognize hysteroscopic, laparoscopic and open myomectomy as fertility-preserving surgical options, with the appropriate approach depending on individual anatomical and clinical factors.

The case therefore emphasizes that preoperative imaging should be interpreted together with clinical examination and previous surgical history. In selected patients with extensive recurrent fibroid disease, open surgery may permit comprehensive palpation and identification of additional small fibroids that are not clearly characterized on imaging.

6. CONCLUSION

Recurrent multiple uterine fibroids can present with considerable diagnostic and surgical challenges in women wishing to preserve fertility.

In this case, preoperative MRI demonstrated eight fibroids, whereas 38 fibroids were identified and removed during open myomectomy. The discrepancy highlights the possibility of underestimation of the total fibroid burden in a markedly enlarged and previously operated uterus.

Individualized preoperative assessment, correction of anemia, appropriate surgical planning and fertility-preserving treatment are essential in patients with extensive recurrent leiomyomas.

7. Future Scope

Long-term follow-up is required to evaluate recurrence of fibroids and subsequent reproductive outcomes following extensive repeat myomectomy.

Future studies involving larger cohorts could help determine the accuracy of different imaging modalities in estimating the total number of fibroids in patients with multiple or recurrent leiomyomas. Further research is also required to establish optimal strategies for reducing recurrence while preserving fertility.

8. REFERENCES

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