

Case Report

Myomectomy During Pregnancy

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SUMMARY**MYOMECTOMY DURING PREGNANCY**

Background: The management of a pregnancy complicated by leiomyoma remains controversial. The overall risk of major complications in pregnancies with uterine leiomyoma is reported as 71%.

Observation: We present two cases of myomectomy during pregnancy. The diagnosis is confirmed by using magnetic resonance imaging in each case. Both patients necessitated myomectomy because of severe pelvic pain. Either of the pregnancies reached to term and no complications occurred.

Conclusion: Parallel to the published data, we think that myomectomy during pregnancy is safe and advantageous in selected cases.

Key Words: Myomectomy, Pregnancy

ÖZET**GEBELİKTE MYOMEKTOMİ**

Konunun önemi: Leiomyoma ile komplike gebelik yönetimi tartışmalıdır. Uterin leiomyoma ile birlikte olan gebeliklerde, toplam majör komplikasyon riski %71 olarak bildirilmektedir.

Olgu: Bu yayında gebelikte myomektomi yapılan iki olguyu sunuyoruz. Leiomyoma tanısı Manyetik Rezonans görüntüleme kullanılarak konfirme edildi. Olguların ikisinde de myomektomi şiddetli pelvik ağrı nedeniyle gerekti. Her iki olgu da terme ulaştı ve herhangi bir komplikasyon görülmedi.

Sonuç: Literatüre paralel olarak, seçilmiş vakalarda gebelikte myomektominin güvenli ve avantajlı olduğu kanısındayız.

Anahtar Kelimeler: Myomektomi, Gebelik

The prevalence of uterine myomas in pregnancy ranges from 0,1% to 5% (1-3). The uterine leiomyoma may be responsible for number of complications in pregnancy depending on the size, number, location, and relationship with placenta (2). A marked increase in pelvic pain, abortion, preterm delivery, abruptio placenta, malpresentation, and cesarean delivery rate is reported in these pregnancies (3). Less common or rare complications include growth restriction, sepsis, L-5 radiculopathy, disseminated intravascular coagulation, urinary retention, and fetal anomalies (4). Even though there are apprehensions for abortion and preterm delivery for myomectomy itself during pregnancy, in such cases mentioned above the procedure may be inevitable. Because of their relative infrequency, the question arises often as to whether the diagnosis of leiomyoma can be confirmed during pregnancy. The clinical question is what

impact the leiomyoma will have on the pregnancy and whether a myomectomy can be performed safely at some stage of the pregnancy.

CASE 1

A 35 years old, gravida 9, parity 4 woman was hospitalized for pelvic pain at 19 weeks' gestation. On admission, ultrasonographic examination showed a solid mass of 12 centimeters in diameter adjacent to the gravid uterus. Magnetic resonance imaging (MRI) revealed the mass to be of uterine origin (Figure-1 and 2). Relief was achieved by non-steroidal anti-inflammatory agents. The ethic committee decided on expectant management and so the patient was followed in an outpatient regimen. On the follow up, progressive abdominal pains unresponsive to medical treatment were encountered, and, so on the 21st. week of the pregnancy laparotomy was performed. On surgical exploration, a fundal pedunculated, degenerating myoma of nearly 15-centimeter in diameter with a stalk of 3-cm diameter was found. Consequently

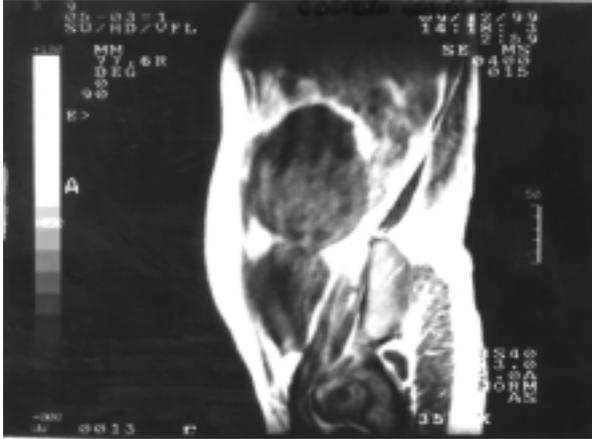


Figure 1. Sagittal view of leiomyoma and its stalk, arising from gravid uterus.

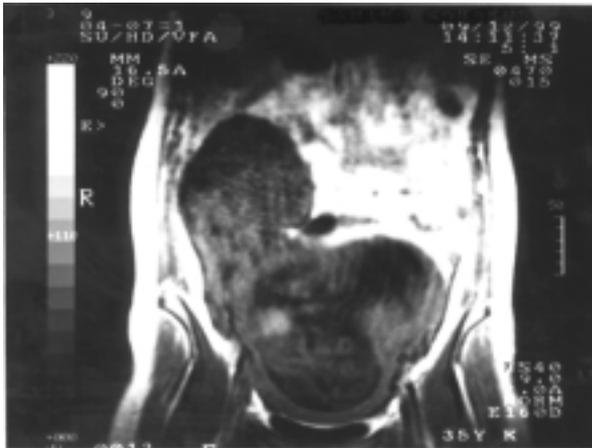


Figure 2. Coronal section of the gravid uterus and myoma that had heterogeneous appearance related to degeneration.

myomectomy was performed. The operation took 17 minutes overall. Pathological examination of the mass confirmed the diagnosis of degenerating leiomyoma. Pregnancy was progressed to the term without complications and a 3400-gram male baby was delivered by elective cesarean section. Neither neonatal nor puerperal complication occurred.

CASE 2

A calcified solid mass of 10 centimeters in diameter was observed during routine ultrasonographic examination of a 32 years-old primigravida woman with 12 weeks' gestation. In further evaluation of this asymptomatic mass, MRI showed a large myoma situated in the anterior aspect of the gravid uterus. In two weeks, the patient started having recurrent attacks of pelvic pain consistent with torsion of the uterine leiomyoma. Failure of medical treatment with non-steroidal anti-inflammatory agents led to the decision of laparotomy at

19 weeks' gestation. Explorative laparotomy revealed an uterine myoma of 12 centimeters in diameter with a short, thick pedicle. Successful myomectomy was performed in a period of 20 minutes. Pathological evaluation confirmed the diagnosis of leiomyoma. No complications were encountered during the rest of the pregnancy. A healthy boy of 4000 grams was delivered by elective cesarean section.

DISCUSSION

The overall risk of major complications in pregnancies with uterine leiomyoma is reported as 71% (2-5). Pelvic pain is the most frequent one among these (2,3). The cause of painful myomas is thought to be red degeneration and less likely the torsion of the pedunculated one. The diagnosis in these cases usually obtained by using ultrasound or MRI. MRI is increasingly applied for the quantitative evaluation of uterine leiomyomas. In contrast with ultrasound, MRI offers greater tissue contrast and better tissue characterization (6). MRI can provide precise presurgical mapping prior to myomectomy. Riccio et al. reported that MRI added additional diagnostic information in 78% of cases (7).

Generally myoma in pregnancy is approached with expectant management. When the pelvic pain occur, treatment with bed rest, hydration, non-steroid anti-inflammatory agents, and vitamin E is claimed to be effective (8,9). However, medical treatment sometimes fails and myomectomy would be inevitable (10, 11).

Myomectomy as a treatment for the syndrome of painful myomas in pregnancy has been explored in the literature (8, 10, 11). Burton et al confined their recommendations for myomectomy in pregnancy to symptomatic myomas that are pedunculated with a stalk of 5-cm diameter or less (12). Exacoustos and Rosati recommend consideration of both clinical symptoms and myoma characteristics on ultrasound in decision-making (2). Mollica et al suggested additional criteria in asymptomatic patients for elective myomectomy that consisting large or rapidly growing myomas, large or medium myomas located in the lower uterine segment or deforming placenta. According to these criteria they operated 18 patients and reported good fetoneonatal outcome with no abortions, while in group of 88 pregnancies followed by conservative regimen, 13,6% abortion rate was observed (13).

As a conclusion we think that myomectomy in pregnancy might be performed safely in selected cases. Parallel to the published data we also conclude that the risk of complications due to myomectomy is not significantly increased.

REFERENCES

1. Rasmussen KL, Knudsen HJ. Effect of uterine fibromas on pregnancy. *Ugeskr Laeger* 1994; 156: 7668- 70
2. Exacoutos C, Rosati P. Ultrasound diagnosis of uterine myomas and complications in pregnancy. *Obstet Gynecol* 1993; 82: 97- 101
3. Rice JP, Kay HH, Mahony BS. The clinical significance of uterine leiomyomas during pregnancy. *Am J Obstet Gynecol* 1980; 160: 1212- 6
4. Phelan JP. Myomas and pregnancy. *Obstet Gynecol Clin North Am* 1995; 22: 801- 5
5. Winer- Muram HT, Muram D, Gillieson MS. Uterine myomas in pregnancy. *J Assoc Can Radiol* 1984; 35: 168- 70
6. Sherer DM, Maitland CY, Levine NF, Eisenberg C, Abulafia O. Prenatal magnetic resonance imaging assisting in differentiating between large degenerating intramural leiomyoma and complex adnexal mass during pregnancy. *J Matern Fetal Med* 2000; 9: 186- 9
7. Riccio TJ, Adams HG, Munzing DE. Magnetic resonance imaging as an adjunct to sonography in the evaluation of the female pelvis. *Magn Reson Imaging* 1990; 8: 699- 704
8. Katz V, Dotters DJ, Droegenueller W. Complications of uterine leiomyomas in pregnancy. *Obstet Gynecol* 1989; 73: 593- 6
9. Fruscella L, Ciaglia EM, Danti M, Fiumara D. Vitamin E in the treatment of pregnancy complicated by uterine myoma. *Minerva Ginecol* 1997; 49: 175- 9
10. Wittich AC, Salminen ER, Yancey MK, Markenson GR. Myomectomy during early pregnancy. *Mil Med* 2000; 165: 162- 4
11. De Carolis S, Fatigante G, Ferrazzani S, Trivellini C, De Santis L, Mancuso S, Caruso A. Uterine myomectomy in pregnant women. *Fetal Diagn Ther* 2001; 16: 116- 9
12. Burton CA, Grimes DA, March CM. Surgical management of leiomyomata during pregnancy. *Obstet Gynecol* 1989; 74: 707- 9
13. Mollica G, Pittini L, Minganti E, Perri G, Pansini F. Elective uterine myomectomy in pregnant women. *Clin Exp Obstet Gynecol* 1996; 23: 168- 72