

Open Myomectomy in Pregnancy

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Abstract: ***Background:** Myomectomy is rarely performed during an ongoing pregnancy because of fear of miscarriage and the risk of an uncontrolled haemorrhage necessitating a hysterectomy. We report a case of a successful open myomectomy in the 13th week of pregnancy. A 30-year-old primigravida was admitted to our department with acute abdominal pain and chronic constipation. Imaging revealed a large implant myoma of size 20 x 20 cm compressing the rectum and complicating her constipation in pregnancy. **Result:** Open myomectomy was successfully performed and pregnancy continued uneventfully until the 37th week when a caesarean section was performed. **Conclusion:** Surgical management of myomas during pregnancy is worth evaluating in well-selected and highly symptomatic cases.*

Keywords: Uterine myomas, miscarriage, degeneration, subserouspedunculated myoma

1. Introduction

The estimated prevalence of uterine myomas during pregnancy varies from 0.3 to 15% [1]. Most uterine myomas remain asymptomatic during pregnancy but may result in obstetrical complications in about 10% of cases depending on their size, location, and number [2–4]. Pain is the main symptom reported in pregnancies with uterine myoma; however, in 2% of patient conservative medical therapy fails. In extreme cases some authors have advocated the interruption of pregnancy to relieve pain [5]. Myomectomy is generally avoided during pregnancy due to the high risk of haemorrhagic or obstetrical complications and no clear unanimous consensus exists, with a surgical approach reserved for cases of intractable abdominal pain and degeneration or rapid growth of myoma [6, 7]. Only a few cases of myomectomy in pregnancy have been reported in the literature [6, 8–10]. In this paper we report a case of myomectomy of intramural myoma with large base of implant causing constipation in the 13th week of pregnancy.

2. Case Report

On February 2019, a 30-year-old primigravid Caucasian woman (BMI: 22) came to our hospital in the 13th week of gestation with the complaint of acute abdominal pain and chronic constipation.

The medical history was uneventful. The patient reported a sense of pelvic heaviness, lower abdominal discomfort, and constipation that had worsened over time. She had a normal white blood cell count and all other reports were within normal limits. Obstetrical examination showed a large mass at the level of the posterior fornix. Abdominal ultrasound confirmed a viable foetus of 12.5 weeks and large implant intramural myoma (largest being with the diameter of 20 cm on the posterior wall of the uterus)

Considering the increase in symptoms that were nonresponsive to analgesic therapy or laxative use, due to organ compression and the risk of increment of constipated symptoms with advancement of pregnancy, after extensive

counselling, a myomectomy was planned. After accurate operative field exposure, the huge myoma was removed from the posterior surface of the uterus. Reconstruction of the uterine wall was carried out using a two-layer monofilament absorbable vicryl 2.0 suture. Few small seedling fibroids were observed but not removed. A surgical was placed on the posterior surface of the uterus to prevent the post operative adhesions. Estimated blood loss and operation time were 250 cc and 90 minutes respectively, and no intra- and postoperative complications occurred. An ultrasonographic control of foetal outcome was carried out 4 days after surgery which proved normal. Antibiotics (Augmentin 1.2gm for three times a day) followed by the oral dose of C. Augmentin 625mg three times a day and low molecular heparin were administered for 7 and 10 days, respectively. The patient was dismissed on the 5th postoperative day.

Progesterone soft gelatine capsule (200 mg) PV was dispensed till 35 weeks of pregnancy to prevent a possible miscarriage. The patient was closely followed up with ultrasound and physical examination every four weeks until 24 weeks of gestation, every three weeks from 24 weeks to 34 weeks of gestation, and then every two weeks. Physiological foetal growth and an uneventful antenatal period were reported until 37 weeks of gestation when a caesarean section was performed.

The patient delivered a healthy male baby weighing 2800 grams with Apgar scores of 8 and 9 at one and five minutes, respectively. The maternal haemoglobin level, two days after caesarean section, was 12.2 g/dL. Mother and baby were discharged from the hospital after three days. The 6-week postnatal visit was within the norm.



3. Discussion

Laparotomic myomectomy is generally avoided during an ongoing pregnancy due to higher miscarriage and haemorrhage rates. Most cases are usually performed during a caesarean section at the end of the pregnancy but it is advisable to keep the myomas InSite even after the delivery considering the large network of blood vessels that can make for difficulty and uncontrollable bleeding, abandoning myomectomy.

In a large study of more than 6300 pregnant women, Coronado et al. reported a 1.9 times greater incidence of complications in women with myomas compared with women without myomas [11].

Preterm delivery has been reported in approximately 15–20% of women with myomas, restriction of foetal growth in 10%, and malpresentation in 20% [2].

The increased risk of miscarriage was attributed to the increase in uterine contractions, degeneration, and growth of myoma.

The most common indication for myomectomy during pregnancy is acute severe abdominal pain that does not respond to analgesic therapy, constipation causing discomfort and rapid abnormal increase in myoma size, resulting in the compression and displacement of surrounding organs. It has been reported that if symptoms persist after 72 h of pharmacological therapy, surgical intervention must be considered [6, 12, 13].

An analysis of cases reported in the literature suggests that myomectomy during pregnancy can be considered safe. Studies have shown that women who undergo surgical intervention in the second trimester actually have better outcomes than those who opt for conservative management [10, 14].

In Lolis et al. 's study, of 13 patients who underwent myomectomy during pregnancy, only one miscarried, making a success rate of 92% [6].

Laparoscopy can be considered in selected cases (subserous pedunculated myomas). It is a valid option in the surgical

management of pregnant women with symptomatic myomas, as it is less invasive and involves minimal postoperative pain and earlier postoperative ambulation [15].

Two cases are reported in the literature with large pedunculated myomas operated by the vaginal route [16].

In our case open myomectomy approach was chosen, because of the size (20 cm), the large base of implant, the location of myoma, and the acute syndrome of the patient.

Although an open approach for uterine myomas during pregnancy is rarely described, our experience suggests that it can be easily managed by an experienced surgeon in selected cases, depending on the size, type, and position of the fibroids.



4. Conclusions

We believe that our experience provides reassurance for pregnant women with uterine myomas: the surgical management of uterine myomas during pregnancy can be successfully performed by expert surgeons on a case-by-case basis. Myomectomy during pregnancy should be performed only if unavoidable. In selected patients it could prevent miscarriage or an unacceptable obstetrical outcome. The surgical approach should be tailored to the patient and to the characteristics of the myoma. Clearly, an expert surgical and anaesthetic team is essential in order to reduce risk of complications.

5. Declaration

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