Case Report

Successful Outcome of Myomectomy in Early Pregnancy: A Case Report

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Abstract
Fibroid in pregnancy is not a rare condition but sometimes become complicated when these need surgical intervention, though the basic principle of management of fibroid with pregnancy is not to do anything to the fibroid whenever possible. However a tricky mixture of surgical intervention with pharmacological therapy & regular follow up can lead to a success. Accurate diagnosis, which may be quite confusing in earlier months of pregnancy where a fibroid can be diagnosed but pregnancy, may be missed. We are describing a case of successful continuation of pregnancy of a young woman with a large fundal sessile sub-serous fibroid which became impacted in pouch of douglas at 9 weeks of pregnancy causing acute retention of urine & severe pain in lower abdomen, creating some inevitable circumstances that the lady could go through a miscarriage. At that time, courageous decision of doing the myomectomy with support of progesterone therapy onwards seems to be accurate for the cases. Though current evidence does not suggest routine myomectomy during early pregnancy, but it should be done where indicated for the better outcome of both mother & fetus. For last four years she is on regular follow up and at present (December, 2021) she is five months pregnant.
Keywords: Fibroid, myomectomy, progesterone therapy, pregnancy

Introduction:

Uterine leiomyoma are the commonest benign tumors of the female genital tract with a prevalence varying from 20-50% in women of reproductive life.[1] Incidence of leiomyoma is unknown but reported rates varies from as low as 0.1% to 12.5%. pregnancies.[2] Surgical management of uterine myoma by myomectomy is limited in pregnant uterus - because of the risk of severe haemorrhage and miscarriage.[3] However in last three decades there have been increasing report of successful myomectomy during cesarean section.[3] Successful emergency and elective myomectomy especially during early pregnancy have been reported[4,5] The management of leiomyoma during pregnancy is medical but in rare circumstances surgical intervention and myomectomy may be needed.[6]

Case Report:

A 28 years old non hypertensive non diabetic primigravid, from middle class family, qualified (Masters degree) and service holder women got admitted in Rangpur Medical College Hospital (RpMCH), Rangpur on 13th August 2017 at 12.30 am having 9wks + 4 days of pregnancy with the complaints of – severe pain in lower abdomen for 24 hours associated with acute retention of urine for same duration and difficulty in defecation According to her statement her menstrual cycle was regular and had no significant menorrhagia and dysmenorrhoea. She was married for 8 months. Her LMP was on 02/06/2017 and EDD on 09/03/2018.

Pregnancy was uneventful up to 8 weeks of gestation. At 8 wks onwards she developed lower abdominal pain which was continuous, dull aching in nature, gradually increased in intensity, associated with vomiting for several times but no dysurea, neither difficulty in micturation or defecation during onset which last for 7 days. Twenty four hours before admission, pain became severe & associated with acute retention of urine & difficulty of defecation. She had no per vaginal bleeding.

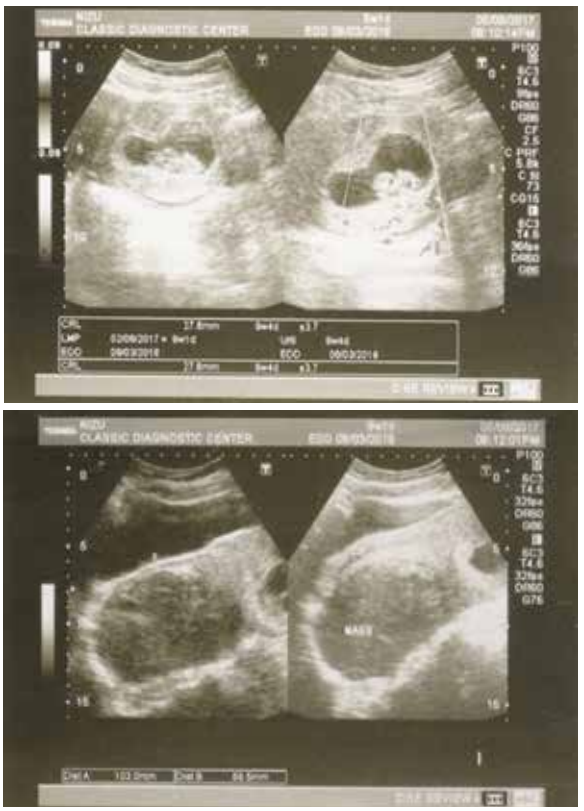


Figure-1: Ultrasonogrphic pregnancy and mass within the uterus

She is a known case of asthma for 3 yrs and on regular medication for this, and has no history of heat and cold intolerance. She had a history of appendicectomy 5 yrs back but no other significant past medical, surgical and gynecological history. She had no family history of DM, TB and HTN.

She was immunized duly according to EPI schedule and with 5 doses of tetanus toxoid.

After proper counseling and maintaining adequate privacy, general physical examination was done she was anxious, ill looking but cooperative, mild to moderately anemic, pulse 80 beats/ min, B.P 100/60 Hg, temp-normal, thyroid gland not enlarged, no lymph nodes were palpable and breast showed normal pregnancy changes. Per abdominal examination revealed no lump and uterus was not palpable. Gentle, aseptic, pelvic examination revealed cervix soft, os closed, uterus >10 wks size (approximately), fornices were free. There was a firm, irregular, tender lump of about >15X15cm impacted in Pouch of Douglas (POD). Digital rectal examination (DRE) corroborates the same findings.

Investigation reports were as follows:

Hb% - 9gm/dl. Urine for R/M/E- no albuminuria, no reducing sugar, no pus cells/HPF. FBS and PPBS were within normal range.

Pelvic sonography (Trans abdominal) showed an intrauterine pregnancy of single live fetus of 9 wks + 4 days (CRL:27.6mm) with pelvic mass lesion, (103x68mm) posterior to the cervix may be sub serous fibroid/solid ovarian tumor.

Management:

Initially she was treated on admission by analgesics, antispasmodics, & indwelling intra vesicle self retaining folleys catheter (no.14) Definite treatment: She was counseled for myomectomy on account of distressing abdominal pain & vomiting, associated with large impacted myoma in POD due to no improvement of her symptoms in spite of medical therapy.

Pre-operative preparations:

The risk of per-operative hemorrhage and possibilities of spontaneous abortion following procedure was explained to her. Informed written consent was taken from her legal guardian. One unit fresh cross matched blood was transfused in preoperative period and also one unit per operatively.

Per-operative findings:

Abdomen was opened by lower vertical midline incision with all aseptic precautions, under regional anesthesia (SAB) . The findings at surgery were : a large >15X15cm (approximately) intramural and sub serous sessile myoma on the fundus impacted in the POD and a smaller one 4X4 cm (approximately) on the anterior wall of uterus. Both the ovaries and fallopian tubes were seems to be normal.



Figure-2: Pregnant uterus and leiomyoma on laparotomy



Figure-3: Pregnant uterus and leiomyoma on laparotomy

After disimpacting by fingers, myoma (larger one) was enucleated by transverse incision over the fundus on anterior surface below the meeting points of two cornu rapidly and carefully using blunt and sharp dissection. Small one was enucleated by vertical incision. Following enucleation, haemostatic measure was carefully carried out. Uterine cavity was not opened, gestational sac was not disturbed. Total time taken from draping to skin closure was 45 minutes. Blood loss was minimum less than 500ml. An intra-abdominal drain tube was placed after peritoneal washing with normal saline and it was removed on 2nd postoperative day. Tissue was sent for histopathology. The histopathology report was leimyoma.



Figure-4: Cut section of leimyoma

Post-operative management:
Intramuscular hydroxyprogesterone caproate (Proluton Depot) 500mg stat and rest, 250 mg twice in a week for 4 weeks postoperatively followed by oral progestins in the formulation of micronized progestin 200mg twelve hourly till delivery.Antibiotics, analgesics, uterine tocolytics were also prescrived. Bed side USG (trans-abdomial) was carried out 48 hours after surgery to evaluate the fetal viability.

Follow up:
She had an uneventful postoperative period and was discharged at home on 14th postoperative day for collecting histopathology report after she was registered for antenatal care.Obstetric ultrasound scan was done at 13 weeks of pg. at 23 wks + 3 days for anomaly scan, both were found normal.Oral Progestins is prescribed till delivery, in addition iron, vitamins, calcium & folate supplementation & ventoline evohaler for her asthma were prescribed.



Figure-5: Ultrasonography at 23 weeks of pregnancy

Obstetrical outcome:

She was advised for having antenatal corticosteroid at 28 weeks of gestation according to WHO schedule and also for getting admission at 38 wks for elective cesarean section if no problem arising before that. On 38 weeks 4 days, she was admitted in a tertiary care hospital and gave birth to a healthy male baby of 3.3 kg by elective LSCS. Her post operative period and peurperium was uneventful. Baby is living a healthy life without any anomalies or complications. Four years follow up showed currently (December2021) she is again pregnant of 5 months with her 2nd baby, without any ovulation inducing drugs or assisted reproductive techniques. She is under regular antenatal checkup. She is also vaccinated against Covid-19 for two doses.



Figure-6: New born baby on ceaserian section

Discussion:

In majority of pregnancies with co-existing myomas, there may be no complications. However in 10-30% of cases, complications may arise - includes spontaneous abortion, pre-labor rupture of membrane, preterm labor, postural deformities, dysfunctional labor, primary PPH and retained placenta, red degeneration of myoma , pressure effect on the adjacent organs.[2,7-9] The management of uterine fibroid during pregnancy is medical but in rare circumstances surgical intervention like myomectomy may be needed.6 Myomectomy on a non pregnant uterus involves the use of tourniquet, clamps or oxytocic to reduce blood supply to uterus and thus reduce blood loss during surgery. None of those could be done in this case because of the developing fetus in utero. The two major complications of myomectomy in pregnancy are abortion and severe bleeding and these have disturb feto-maternal consequences , which are taken care in this case by avoiding usual myomectomy methods & pharmacological progesterone therapy, mentioned above. The role of counseling and informed written consent before myomectomy in pregnancy therefore cannot be overemphasized. Appropriate surgical skills and speed were the major consideration to limit blood loss as massive blood loss has been reported as inevitable complications of myomectomy in pregnancy.[8]

Our patient had a myomectomy with minimum blood loss less than 500 ml & total operative time was 45 minutes. The early gestational age of this pregnancy and hence less uterine vascularization at this stage and the hyper-coagulability in pregnancy may have contributed to the hemostasis achieved in this case.

Though current evidence does not suggests routine myomectomy during pregnancy specially in early pregnancy, but it should be done in selected cases with proper precaution and care, where there is a compelling indication for the better outcome of both mother and fetus.

Conclusion:

Decision to perform a myomectomy during early pregnancy was based on severity of the symptoms, size and site of the fibroid was a success to relieve the symptoms and to prevent abortion also. Therefore in patients like ours a timely and judicious myomectomy option was offered to our patients, avoiding morbidity and mortality associated with emerging procedure. As a result which we had a successful outcome for both mother and fetus

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