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RESEARCH ARTICLE

PLACENTAL ABRUPTION WITH UTERINE FIBROID IN A CHRONIC HYPERTENSIVE MULTIPARUS

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ABSTRACT

Leiomyomas are benign uterine tumours found in 25–35% females of reproductive age. Risk of having fibroids is increased with increasing age. Since more and more couples are delaying childbirth, fibroids are being encountered in pregnancy increasingly. Placental abruption is one of the major lifethreatening obstetric conditions. The fetomaternal outcome of a severe placental abruption depends largely on prompt maternal resuscitation and delivery. We report a case of a 35-year-old Gravida 6, Para 4 woman with 39 weeks gestation who is a known hypertensive poorly controlled. She never followed prenatal consultation. She presented to our hospital Saint Jean marc with one day history of fatigue, vertigo after she collapsed while going to the toilette and picked up by her husband who brought her to the hospital. On examination, ill looking patient in respiratory distress, pale. BP 133/99mmg, pulse rate 116beats/minute, Respiratory rate 36cycles/minute, temperature 35.5°C. The uterus was board like, tender, and there was no fetal heart sound. Diagnoses of chronic hypertension, placental abruption were made. An urgent abdomen ultrasound scan was done which showed a retro placental clot and a large sub-mucosal fibroid in posterior wall of uterus. Two hour later she delivered a fresh still birth male baby. Patient started to bleed per vagina and entered into hypovolemic shock despite manual uterine revision, resuscitation was commenced with intravenous infusion of normal saline, and was transfused with 2 units of fresh whole blood. A diagnosis of uterine atonia was made and patient was taken to theatre urgently. Intraoperatively a large sub-mucosal fibroid in the posterior wall of uterus was removed (figure 1) measuring 5,5x3,5x3cm and the haemorrhage stopped, She received one more unit of fresh whole blood intraoperatively. The postoperative recovery was satisfactory. She was reviewed one week post discharge and transferred to physicians for BP control.

Key words: Placental Abruption, Uterine Fibroid, Chronic Hypertension, Maternal Hypotension.

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INTRODUCTION

Uterine leiomyoma (fibroids) are benign smooth muscle tumours originating from the uterine myometrium (Fig. 5) and are the most common solid pelvic tumours as well as the most frequently reported indication for surgery in women. Uterine leiomyoma occur in up to 80% of all women of reproductive age (Julie Kim, 2013). Fibroids are the leading cause of hysterectomy in France, responsible for fertility disorders, menometrorrhagia and pelvic pain (Guillaume Legendre, 2011). Their size, their position relative to the myometrium (submucosal, interstitial, sub serosal), their number, their position on the uterus (corporeal, isthmic, preva) and their consistency (Fig. 1). These characteristics have as many variants as there are patient carriers (Delabarrea Routiotb, 2002). Knowing the complications that can occur in women with fibroids during pregnancy but also in the per and postpartum period is important for both prevention and anticipation (Kellal, 2010). Placental abruption, defined as the premature separation of the placenta, complicates approximately 1% of births. Abruption is an important cause of vaginal bleeding in the second half of pregnancy and is associated with significant perinatal mortality and morbidity (Yinka Oyelese, 2006)

Case Presentation

We report a case of a 35-year-old Gravida 6, Para 4+0 woman with 39 weeks gestation who is a known hypertensive poorly controlled with nifedipine since 3 years ago. She never followed up prenatal consultation. She presented to our hospital saint jean marc with one day history of fatigue, vertigo after she collapsed while going to the toilette and picked up by her husband who brought her to the hospital. On examination, ill looking patient in respiratory distress, pale. BP 133/99mmg, pulse rate 116beats/minute, Respiratory rate 36cycles/minute, temperature 35.5°C. The uterus was board like, tender, and there was no fetal heart sound. No ankle edema. The cervix was posterior and was 60 effaced and 5cm dilated. Diagnoses of chronic hypertension, placental abruption were made. An urgent abdomen ultrasound scan was done which showed a retro placental clot and a large sub-mucosal fibroid in posterior wall of uterus. Two hour later she delivered a fresh stillbirth male baby weighing 3500gr the baby and placenta were delivered en bloc and patient started to bleed per vagina and entered into hypovolemic shock despite manual uterine revision with BP of 60/30mmhg and pulse rate 120beats/minute, resuscitation was commenced with intravenous infusion of normal saline, and was transfused with 2 units of fresh whole blood. A diagnosis of uterine atonia was made and patient was taken to theatre urgently, her bedside clothing profiles were normal. Intraoperatively a large sub-

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mucosal fibroid in the posterior wall of uterus was removed (Figure 1) measuring 5,5x3,5x3cm and the haemorrhage stopped. She received one more unit of fresh whole blood intraoperatively. The postoperative recovery was satisfactory. The 5th day post-operative was discharged on oral antibiotics and was reviewed one week post discharge and transferred to physicians for BP control

DISCUSSION

Abruptio placentae refers to separation of the normally located placenta after 24 weeks of gestation. This event occurs with a frequency of 1 in 129 births. Abruptio placentae has achieved resurgence in awareness given the causal relationship with hypertension and cocaine. Severe abruption has a foetal mortality rate of 0.2% (Ananth *et al.*, 2006; Samina Naseem Khattak, 2012). Bleeding into the decidua basalis leads to separation of the placenta. Hematoma formation further separates the placenta from the uterine wall and compresses these structures, compromising the blood supply to the foetus and leading to increased intrauterine pressure, uterine tenderness, frequent uterine contractions, foetal distress, and foetal death. The severity of foetal distress correlates with the degree of placental separation (Samina Naseem Khattak, 2012). Maternal hypotension and fetal heart rate (FHR) abnormalities suggest clinically significant separation that could result in fetal death and severe maternal morbidity. When placental separation exceeds 50 percent, acute disseminated intravascular coagulation and fetal death are common (Oyelese, 2006; Cande, 2017). Women with an acute abruption classically present with the abrupt onset of vaginal bleeding, mild to moderate abdominal and/or back pain, and uterine contractions. Back pain is prominent when the placenta is on the posterior wall of the uterus.

The uterus is often firm, and may be rigid and tender. Contractions are usually high frequency and low amplitude, but a contraction pattern typical of labor is also possible and labor may proceed rapidly. Vaginal bleeding ranges from mild and clinically insignificant to severe and life-threatening. Blood loss may be underestimated because bleeding may be retained behind the placenta and thus difficult to quantify. The amount of vaginal bleeding correlates poorly with the degree of placental separation and does not serve as a useful marker of impending fetal or maternal risk. Abdominal pain is a better predictor of poor outcome (Kasai, 2015). Identification of a retroplacental hematoma is the classic ultrasound finding of placental abruption. Retroplacental hematomas have a variable appearance; they can appear solid, complex, and hypo-, hyper-, or iso-echoic compared to the placenta. Hypoechoic and sonolucency are features of resolving rather than acute hematomas. Sonographic findings consistent with placental abruption are associated with the worse maternal and perinatal outcomes (Cande, 2017). Uterine fibroids (leiomyomas) are benign smooth muscle tumours of the uterus. The potential effects of fibroids on pregnancy and the potential effects of pregnancy on fibroids are a frequent clinical concern since these tumours are common in women of reproductive age. Most pregnant women with fibroids do not have any complications during pregnancy related to the fibroids. Pain is the most common problem, and there may be a slightly increased risk of obstetrical complications such as miscarriage, premature labour and delivery, abnormal fetal position, and placental abruption (David, 2017). Chronic or pre-existing hypertension complicates approximately 3-8 per 1000

pregnancies. The condition confers increased risks for an array of reproductive and perinatal outcomes that include stillbirth, preterm birth, and restricted fetal growth. The most common maternal risks that are associated with chronic hypertension include preeclampsia, pregnancy-induced hypertension (PIH), insulin resistance, and placental abruption (Ananth, 2006). Fibroid may be responsible for vascular endometrial, decidua, and placental disorders that may result in chronic fetal growth or acute placental abruption complication (Lopes, 1999). The retroplacental hematoma complicates less than 1% of pregnancies, 0.25 to 0.5% depending on the series. In almost half of the cases, it occurs in patients with arterial hypertension or pre-eclampsia who is at the origin of a localized infarction of the placenta with bleeding in front of it. Abdominal trauma or shock may also be the cause of a placental retro hematoma (Docteur Jean-Marc, 2005). Abruptio placentae associated with retro placental leiomyomas may those with have a similar. Patho physiology as maternal hypertension. Maternal hypertension is present in almost half. Of abruptio placentae that results in intrauterine fetal deaths (James, 1989) the frequency of myomas during pregnancy is between 3 -13% the effects of myomas on pregnancy are controversial. most studies are retrospective series or case-control studies that are subject to certain biases including sectional identifying the myomas either during a painful abdominal episode or an obstetric complication. Several studies show a positive association with the risk of postpartum haemorrhage (Legendre *et al.*, 2011).

The most common postpartum complication with fibroids is Post Partum Haemorrhage, likely caused by altered uterine contractility in women with fibroids. The high rate for emergency hysterectomy in women with fibroids reported in 2 studies supports the hypothesis that the altered contractility of a uterus with fibroids renders it more prone to haemorrhage (Ouyang, 2006; Sarwat Navid, 2012) the role of myomectomy in case of asymptomatic myoma, the justifications for asymptomatic management are to exclude all malignitis, to preserve fertility, to reduce the risk of complication during pregnancy and thus to avoid complications related to an increase in myoma size (2.5% versus 1.4%), however, placental retention does not appear to be related to the presence of urinary myomas (Legendre, 2011). There is a real relationship between uterine myoma and pregnancy rate precipitating the occurrence of maternal and obstetrical complications in about 10% of cases Although all current studies and recommendations encourage the optimal medical management of these patients, the symptomatology is sometimes such that the use of surgical treatment during pregnancy is necessary.

Even if the association fibroid and pregnancy is not rare, we must know how to reassure our patients. Regular follow-up and appropriate medical management can prevent and treat most complications Although no study has shown evidence of a causal link, the progression of fibrosis during pregnancy to aseptic necrobiosis is not uncommon. Operative indications during pregnancy must remain exceptional, reserved for complex pedicled subsinous fibroids, in torsion or in Necrobiosis, resistant to medical treatment (Pelissier *et al.*, 2012). Early delivery is usual. It has been recommended that, if the baby is alive and the gestation not so early as to make fetal survival extremely unlikely, delivery should be by caesarean section. Even if the fetus is not obviously hypoxic as a result of placental separation, the effect of the uterine

contractions which almost inevitably follow abruption might further compromise the supply of oxygen to the fetus through the placenta. Contractions may also produce shearing forces and therefore the risk of further separation. If the fetus is already dead, as is often the case, it is usual to aim for vaginal delivery (Neilson, 2003). Myomectomy at the time of cesarean delivery is associated with significant hemorrhage and should be performed with caution and only in selected patients. Cobellis *et al* compared myomectomy at the time of a cesarean and outside pregnancy and suggested that it is associated with more linear and well-defined scars than if it is performed during cesarean section (Cobellis, 2002; Ozgur Yeniél, 2010)

Conclusion

Pregnancy with uterine fibroid is a potentially serious problem. In some cases it does not affect the pregnancy outcome but in other cases can result in breech presentation, malposition, preterm delivery, placenta praevia and severe post partum haemorrhage depending on the size of fibroids, location, number and site of placental attachment. A quick review of the patient's prenatal course, such as a known history of placenta previa, may help lead to the correct diagnosis. The patient should also be asked if she has had a placental abruption in a previous pregnancy. An ultrasound examination is useful primarily in the exclusion of placenta previa or vasa previa.

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