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Pregnancy Outcome and Uterine Fibroids

Abstract

Myomas are observed in about 3–12 % of pregnant women. Uterine fibroids may affect the outcome of pregnancy. The presence of myomas – in particular of myomas that distort the uterine cavity and larger intramural myomas – has been associated with infertility. In the case of pregnancy, it has been linked to an increased risk of spontaneous abortion, fetal malpresentation, placenta previa, preterm birth, cesarean section, and peripartum hemorrhage. Although fibroids may negatively affect pregnancy outcome, the impact of their treatment, particularly in quantitative terms is unclear. Hysteroscopic myomectomy is the treatment of choice for submucous fibroids. The comparative efficacy of laparoscopic, laparotomic, or new modalities of treatment of intramural fibroids is not known. Up to date the choice and modalities of treatment of submucous fibroids should not be based on sound evidence but on clinical concerns and the skill of each center.

Keywords: *fibroids, submucous, myomas,pregnant, woman, treatment, uterine*

Introduction

Uterine fibroids are a common condition (Klatsky et al., 2008): in particular, myomas are reported in about 3–12 % of pregnant women (Metwally et al., 2011; Pritts, Shavell et al., 2012). In addition to causing pain, uterine fibroids may also affect the outcome of pregnancy. The presence of myomas – in particular of myomas that distort the uterine cavity and larger intramural myomas – has been associated with infertility; in the case of pregnancy, this has been linked to an increased risk of spontaneous abortion, fetal malpresentation, placenta previa, preterm birth, cesarean section, and peripartum hemorrhage (Coronado et al., 2000). Myomectomy is the standard of care for treating symptomatic fibroids in women who wish to bear more children. However, presently, other techniques such as artery embolization, robot-assisted myomectomy, or magnetic resonance imaging (MRI)-guided focused ultrasound surgery (MRgFUS) are available. However, the different efficacy profiles of different techniques on the pregnancy outcome are still a matter of debate (Michels et al., 2014; Shen et al., 2012). In this paper, we review the association between fibroids and pregnancy outcome, as well as the role of fibroid treatment in improving the pregnancy outcome.

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Research

Myoma can have harmful effects on the baby at any stage of pregnancy. While it can cause miscarriage in the early weeks of pregnancy, it can cause harmful effects for both the mother and the baby in the later weeks of pregnancy (Karlsen et al., 2020; Ezzedine & Norwitz, 2016).

Possible harms of myoma to pregnancy are;

Premature birth,

Early water rupture,

Early separation of the partner (placental abruption),

The partner being in the front (placenta previa),

Inhibition of baby's development,

Low birth weight,

Postpartum bleeding,

Uterine rupture,

Cesarean section.

Myomas increase the risk of miscarriage depending on their location and size. Especially submucous and intramural myomas can cause miscarriage. Even if the size of a submucous myoma is small, it can cause miscarriage. Therefore, if a submucous myoma is detected in a woman planning pregnancy, the myoma should be surgically removed before pregnancy.

Intramural myomas must press on the inner wall of the uterus to cause miscarriage. Intramural myomas that do not press on the inner wall of the uterus (endometrium), that is, far from the cavity where the baby will settle, do not cause miscarriage.

If intramural myomas have reached dangerous sizes, they can cause miscarriage by causing contractions in the uterus. However, this is rare. Intramural myomas that have reached very large sizes but do not press on the inner wall of the uterus can more often cause premature birth or miscarriage in later weeks of pregnancy. They do not cause miscarriage in early weeks of pregnancy (Li et al., 2024).

Subserous fibroids, which are fibroids that have grown outside the uterus, do not cause pregnancy loss.

Myoma and Premature Birth — Births that occur before the 37th week of pregnancy are called premature birth. There are many causes of premature birth, one of which is fibroids. Myomas reduce the flexibility of the uterus and cause premature birth by increasing the secretion of the oxytocin hormone that causes labor pain.

Myomas can also cause the baby's water to break before starting labor pains. If the baby's water breaks early, the birth should be carried out after the necessary preparations. Because early water break increases the risk of infection in the baby and the mother.

Studies have shown that intramural, large or multiple fibroids cause premature birth. Subserous fibroids are not expected to cause premature birth.

Myoma and Problems with the Baby's Placenta — Myomas can cause problems with the baby's placenta due to their space-occupying effects. Myomas cause problems with the placenta by putting pressure on the uterus and disrupting blood flow. These problems include placental abruption and placenta previa.

Placental abruption is defined as the premature separation of the baby's placenta, while placenta previa is defined as the baby's placenta being in front. Placental abruption is a cause for emergency cesarean section. If the baby is not delivered within minutes, the baby may be lost. A fatal condition due to clotting may be observed in the mother.

If the baby's placenta is in front, there is a risk of bleeding during pregnancy at any time. If the bleeding cannot control itself, an emergency cesarean section should be performed regardless of the week of pregnancy. If the myoma is located behind the baby's placenta, it may cause the placenta to separate early due to pressure and disruption of blood flow.

Myoma and Postpartum Bleeding — Since myomas reduce the ability of the uterus to contract, they may increase the risk of postpartum bleeding. Therefore, a woman who has myoma and gives birth should be alert for bleeding. Necessary precautions should be taken to prevent bleeding.

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Myomas can also cause postpartum bleeding by preventing the baby's placenta from separating. In this case, the baby's placenta may need to be removed with a method called manual removal.

Conclusion

A myoma can prevent a normal birth by preventing the baby from being breech or entering the birth canal. In a normal pregnancy, the baby should turn from breech to head delivery in the later weeks of pregnancy. However, due to the myoma, the baby cannot make rotation movements and remains in the breech position.

When labor begins, the baby should enter the birth canal with the pains. However, due to the pressure of the myoma, the baby cannot enter the birth canal and labor does not progress.

Due to these factors, a woman with a myoma is more likely to have a cesarean section. However, this does not mean that those with myoma cannot have a normal birth. It is decided whether a woman with a myoma can have a normal birth or not according to the baby's position, weight and the patient's examination.

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