



An Overview on Missed abortion in 2nd trimester

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Abstract

Maternal mortality is one of the important maternal health parameters. Since 1990, worldwide maternal death rates have declined by 47 % although the incidence is still high in developing countries. The global maternal mortality rate is about 210/100000 births, while in developing countries it is 240/100000 compared to 14/100000 in developed countries. At the international and national level, accurate identification and timely recording of maternal deaths are needed. Death of a woman during pregnancy or within 42 days of termination of pregnancy is defined as maternal death. In that terminology, termination of pregnancy is irrespective of the duration and site of the pregnancy and from any cause related to or aggravated by the pregnancy or its management. There have been variable causes of maternal mortality. Hemorrhage is the leading cause of maternal deaths in Africa and Asia however hypertensive disorders were responsible for 25% of maternal mortality in Latin America and Caribbean. Maternal death related to abortion is still determined in high incidences in underdeveloped and developing countries due to unsafe abortion and due to restriction of legal abortion by legislation. It is observed about 13% of all pregnancies, including unsafe abortions.

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1. Introduction

Second trimester, mid-trimester pregnancy, is defined as period of gestation between 13 to 28 weeks and is commonly subdivided into early ranging from 13-20 weeks and late from 20-28 weeks gestation [1]. Missed abortion in 2nd trimester can be the result of a very preterm delivery (like a spontaneous abortion in second trimester) or death of fetus (called a fetal demise). About 2-3% of pregnancies are lost in the second trimester, a rate that is much lower than in first trimester. Once a pregnancy gets to about 20 weeks gestation, less than 0.5% will end in the fetal demise [2]. A loss at this time in pregnancy is most often a hard and sad experience. Treatment of a second trimester loss is very different than early abortion. However, a missed abortion in the 2nd trimester is not a medical emergency so treatment is not immediately indicated. If the patient has very heavy vaginal bleeding or feeling very sick, she should go to emergency room [2].

2. Causes of a missed abortion in 2nd trimester

The causes of a pregnancy loss in the second trimester are very different than early pregnancy loss. There are the medical conditions that increase the risk for cervical insufficiency or preterm labor before the viability which include:

- ❖ Prior surgery to the cervix.
- ❖ Use of illicit drugs, especially cocaine.
- ❖ Fetal abnormalities (genetic or the structural problems).

- ❖ Uterine infection (this is more common in developing countries).
- ❖ Physical problems with the uterus, including fibroids or abnormalities in the shape of the uterus [3].

There are also some medical conditions that are associated with fetal death in second trimester which include:

- ❖ Fetal abnormalities (genetic or structural problems).
- ❖ Poorly controlled maternal conditions like thyroid disease, diabetes or hypertension.
- ❖ Lupus (systemic lupus erythematosus).
- ❖ Autoimmune or genetic conditions that increase a woman's risk of forming blood clots in her legs or her lungs (like anti phospholipid syndrome).
- ❖ Very early pre-eclampsia or eclampsia of pregnancy.
- ❖ Trauma [3].

3. Main symptoms of a missed abortion in 2nd trimester

• Bleeding

Most commonly, bleeding is a sign of a problem with the placenta and does not indicate a fetal demise. But bleeding can be a sign that the cervix is opening without labor (called cervical insufficiency). With cervical insufficiency, cervix begins to open early without contractions; as the cervix opens more, contractions then follow [2].

• Cramping

Pregnancy losses in the second trimester can be due to early labor [2].

- **Loss of fetal movement**

This can indicate a fetal demise. Most women can feel baby moving by 20th week. Decreased fetal movement is more commonly a sign there is a problem with pregnancy and only rarely does it mean fetus has died [3]. Most women less than 20 weeks of pregnancy do not notice any symptoms of a fetal demise. Test used to check for fetal demise in second trimester is an ultrasound examination to see if baby is moving and growing. Fetal demise diagnosed when ultrasound examination shows no fetal heart activity [3].

4. Treatment

- **Spontaneous abortion**

It is typically not safe for a woman to wait for the pregnancy to deliver on its own with a missed abortion in 2nd trimester. There is a high chance of having significant bleeding because of fetal demise, a dead fetus that has been in the uterus for four weeks can cause changes in the body's clotting system [4]. These changes can put a woman at a much higher chance of significant bleeding if she waits for a long time after the fetal demise to deliver the pregnancy. Testing to figure out the cause of the pregnancy loss can be performed regardless of the method a woman chooses for termination [3]. A missed abortion in the 2nd trimester is an emotional and stressful time and a good obstetrician always wants to ensure that the emotional needs of the patient and her family are met as well. Good obstetricians understand this is a time that the patient needs support, and they are sensitive to her wishes for remembrances and religious preferences [5].

- **Medical treatment**

Involves administration of medication to induce labor and deliver fetus, it may require further evacuation and curettage of remnant of conception under anesthesia if present [6]. Medical termination of second trimester pregnancy, mainly by misoprostol (PGE1) use, offers a high possibility for improving access and relative safety owing to its simplicity compared to surgical techniques but might be complicated by uterine hyper stimulation and subsequent rupture especially in women with previous scars [7]. Isosorbide dinitrate (a nitric oxide donor) promote cervical smooth muscle relaxation and ripening, via increase (cGMP), this second messenger involved in NO mediation. The increased cGMP level causes smooth musculature to relax [6]. Metabolic activity of endogenous nitric oxide (NO) and medical use of nitro vasodilatory drugs like isosorbide di nitrate have shown to be potential inducers of cervical ripening prior to surgical evacuation of uterus [6]. Use of intra cervical extra-amniotic Foley's catheter placement is another procedure used for mechanical cervical ripening and stimulating endogenous release of prostaglandins and cytokines that make cervix inducible and eases process of termination [8]. Some stated combination of Foley's catheter for mechanical induction and cervical preparation with misoprostol simultaneously gave shorter induction to abortion intervals [9].

- **Surgical treatment**

- **Abdominal hysterotomy**

This is a major operation to remove the fetus from the uterus through an incision in the abdomen. This is rare but may be necessary if failed medical induction and D and E

cannot be done, repeated cesarian section, history of rupture uterus and advanced gestation age [10].

5. After treatment of a missed abortion in 2nd trimester

Bleeding may continue for several weeks after a labor induction but tends to be much lighter with a surgical evacuation. Any bleeding may change in color from bright red to pink or brown. Lower abdominal cramping in the few days after treatment is also common [11]. The patient should contact a doctor right away if the bleeding gets heavier instead of lighter over time, if a fever develops, or if vaginal discharge or a strange or unpleasant vaginal odor occurs. Avoiding intercourse, douching, or using tampons for one week is mandatory. Regular activities can be resumed right away, based on how the patient feels. Importantly, if the patient wants to delay getting pregnant, it will be very important to start an effective method of contraception [11].

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