



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

CHEMICAL PREGNANCY:

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Abstract:

Early miscarriage is generally referred to a chemical pregnancy. Though there is a contradiction whether chemical pregnancy is a blessing or a curse. A group of medical practitioners say that it's a good sign to undergo chemical pregnancy as it ensures to be capable of being pregnant whereas others consider it a misfortune since leading to miscarriage.

Index Terms: Miscarriage, Embryo, HCG, Polycystic ovary syndrome (PCOS), IVF (In Vitro Fertilization), IUP (Intra Uterine pregnancy)

Introduction:

Chemical pregnancy is the early miscarriage, usually in the 1st trimester of gestation period. It is also called as biochemical pregnancy. It is a very common problem found among every 4th women. It is also found to occur even before a woman misses her periods or has symptoms of pregnancy. It is basically a pregnancy that ends before it starts even before the foetus formation ending in miscarriage. In this case, the sperm fertilizes the egg but doesn't develop an embryo leading to loss of pregnancy.

Causes of chemical pregnancy:

The exact reason of a chemical pregnancy is still not known. Chromosomal abnormalities are the main reason of most of the miscarriages, including chemical pregnancy. These chromosomal abnormalities prevent fetus from developing normally.

Other causes can be as following-

- I. Levels of hormones are not normal
- II. In case of implantation outside the uterus
- III. Various infections like chlamydia or syphilis
- IV. Various abnormalities in uterine

Risk factors:

We may not prevent a chemical pregnancy, but we should know about the known risk factors of this. Women who are undergoing IVF (in-vitro fertilization), often detected with chemical pregnancy. There are some other risk factors and undiagnosed conditions that may increase someone's possibility of getting a chemical pregnancy. These include:

- I. Blood clotting disorder
- II. Diabetes
- III. Maternal age over 35
- IV. Polycystic ovary syndrome (PCOS)
- V. Thyroid disorder

Symptoms:

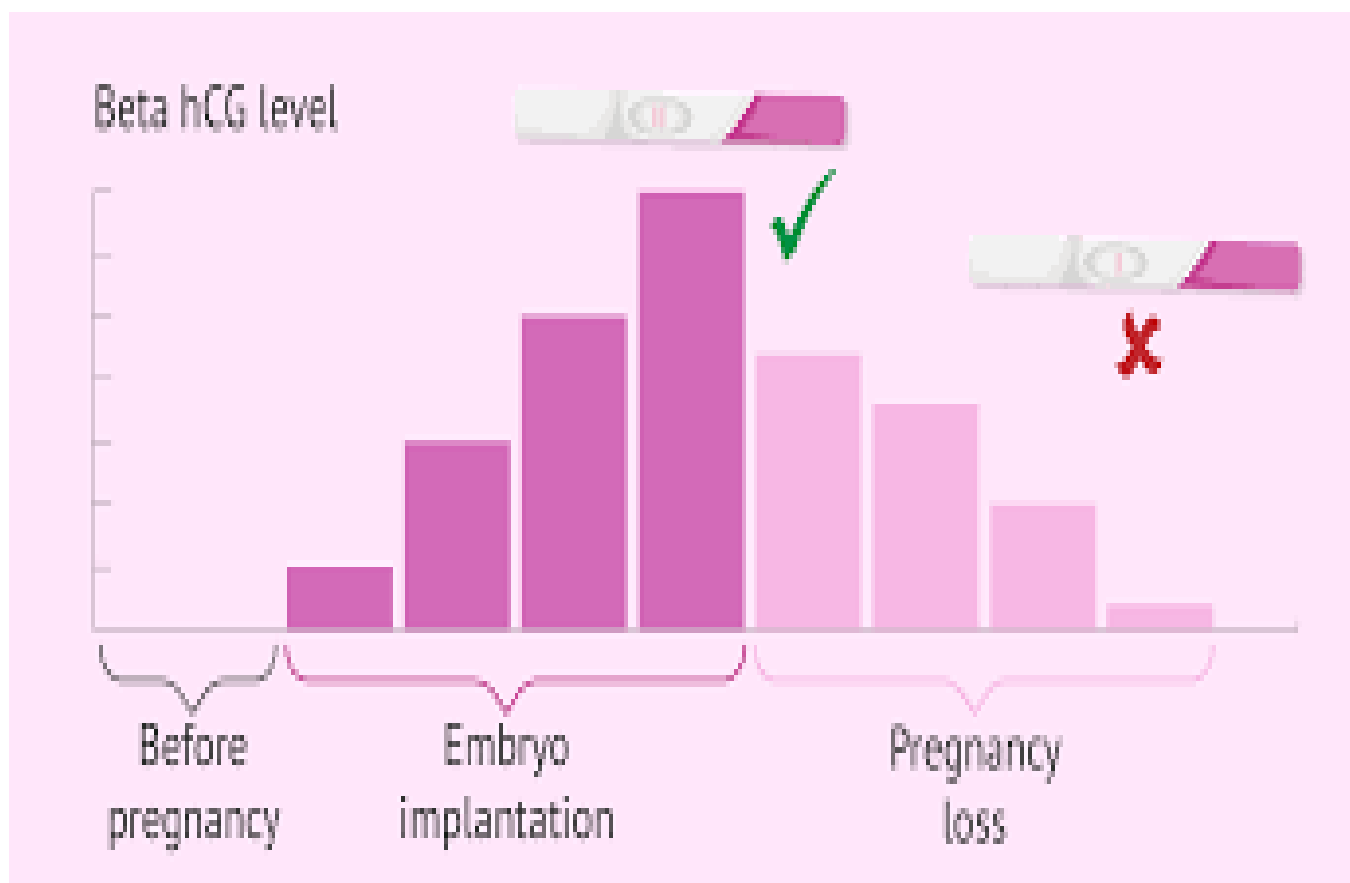
Most of the women who have had a chemical pregnancy fail to realize that they have conceived, since the main real symptom is a late period. Sometimes it happens that an early pregnancy test shows a false alarm i.e. faint positive results but later gives a negative result in one week or two weeks. Thus, a chemical pregnancy is revealed sometimes.

As the home pregnancy tests are quite sensitive now a days, many women discover that they are pregnant very early, even before their anticipated period. The fertilized egg cells produce sufficient amount of the pregnancy hormone hCG (human chorionic gonadotropin). This elicit a positive pregnancy test result, but later the development of embryo stops. While some might expect that the menstrual bleeding would be heavier than usual in case of chemical pregnancy, but most of the times it is same as a normal period. Some other symptoms of chemical pregnancy can be like-

- I. Low hCG levels on a blood test
- II. Mild abdominal cramping or more cramping than normal during a period
- III. Mild spotting about a week before a normal period is due (this is different than implantation bleeding, or spotting that occurs in early pregnancy)

As the pregnancy hormone levels are present in a low amount in case of chemical pregnancy, one cannot normally experience any of the other common signs of early pregnancy such as fatigue or nausea.

A chemical pregnancy naturally does not affect a woman's body, but it can cause emotional sufferings. Even the earliest pregnancy loss can lead to feelings of deep sorrow and grief.



Graphical Representation of Chemical Pregnancy

Diagnosis:

The gestational sac is the first structure visible in pregnancy on ultrasound. This is 97.6% specific for the detection of intra-uterine pregnancy (IUP).

In clinical pregnancy, this gestational sac is large enough to be visible on ultrasound or a strong heartbeat is detected. But in case of chemical pregnancy, neither the sac is big enough to be visible on ultrasound nor a strong heartbeat is detected sometimes.

So, the only way left out to confirm chemical pregnancy is doing some blood tests.

But here comes another problem that is even these tests may not be able to detect any pregnancy hormones (like hCG) or find that the levels are falling; which is clear in case of chemical pregnancy.

Treatments:

Chemical pregnancies generally occur so early that they do not have big effects on a woman's body and do not need much treatments. If it happens one time, even then the couple do not need to worry much and they can easily try again immediately. If any woman has suffered from more than one chemical pregnancy, then she may consult with doctor to get rid of these types of situations and deduct the risk of another early stillbirth.

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