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TCM Reproductive Medicine
Secondary Amenorrhea
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Western Reproductive Medicine I

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What Is Recurrent Pregnancy Loss?

Recurrent pregnancy loss is defined as the occurrence of two or more consecutive pregnancy losses. A pregnancy loss is a clinically recognized pregnancy involuntarily ending before 20 weeks. A clinically recognized pregnancy means the pregnancy has been visualized on an ultrasound or pregnancy tissue was identified after a pregnancy loss.

Miscarriage is the loss of a pregnancy before viability, occurring in 15-20% of all pregnancies. It is the most common complication of pregnancy. Studies show that approximately 25% of all women experience at least one miscarriage in their lives. The individual risk may vary depending on age and other factors. The risk of miscarriage is 9.5% for women younger than age 24 and increases with age. The risk increases to 11% by age 30, and 33% by age 40. For women over age 44, the incidents of miscarriage increases dramatically to 53%. The unfortunate fact of miscarriage is the vast majority of them are not preventable due to developmental or genetic problems in the embryo or fetus that cannot be treated.

What causes it?

Most pregnancy losses result from chromosomal, genetic abnormalities, and random events. The abnormality comes from the egg, the sperm, or the early embryo. Approximately 12-15% of all clinically recognized pregnancies end in miscarriage. It is estimated that at least 30-60% of all conceptions will end within the first 12 weeks of gestation. Up to 50% of the time, the woman does realize she was pregnant. The risk of miscarriage increases with the number of previous pregnancy losses, but it is typically less than 50%.

Advancing maternal age is associated with an increased risk of miscarriage, which is thought to be due to poor egg quality leading to chromosomal abnormalities.

There could be an abnormality in the uterus that leads to miscarriage. The miscarriage may be caused by poor blood supply or inflammation. Some women may have an irregularly shaped uterus and some women may develop abnormalities within their uterus over time.

A woman's immune system may also play a role in recurrent pregnancy loss. Hormone abnormalities may also impact pregnancy loss that includes thyroid disease, and medical problems related to obesity, such as diabetes and polycystic ovaries. Abnormalities in a mother's blood clotting ability may also affect pregnancy loss.

Generally speaking, environmental factors, stress, and occupational factors do not seem to be related to pregnancy loss.

Many factors can lead to recurrent miscarriage, though the cause cannot be found in almost 50% of repeated miscarriages. The commonly found causes of repeated miscarriage are chromosomal abnormalities. The presence of specific antibodies in the woman's uterus are called antiphospholipid antibodies.

Genetic/ Chromosomal causes

A chromosome analysis performed from the parents' blood identifies an inherited genetic cause in less than 5% of couples. Translocation is the most commonly inherited chromosome abnormality. Although a parent who carries a translocation is frequently normal, their embryo may receive too much or too little genetic material.

Many early miscarriages are due to the random occurrence of a chromosomal abnormality in the embryo. In fact 60% or more of early miscarriages may be caused by a random chromosomal abnormality, which usually has a missing or duplicated chromosome.

Age

The chance of a miscarriage increase as a woman ages. After age 40, more than one-third of all pregnancies end in miscarriage. Most of these embryos have an abnormal number of chromosomes.

Hormonal Abnormalities

Progesterone is a hormone which is produced by the ovary after ovulation; it is necessary for a healthy pregnancy. There is debate about whether low progesterone levels (often called luteal phase deficiency) causes repeated miscarriage. Treatment includes ovulation induction, progesterone supplement, or injection of human chorionic gonadotropin (hCG), but there is no evidence to support the effectiveness of these treatments.

Metabolic Abnormalities

Poorly controlled diabetes increases the risk of miscarriage. Women who have insulin resistance, such as obese women, and have polycystic ovarian syndrome also have higher rates of miscarriage.

Uterine Abnormalities

Distortion of the uterine cavity may be found in approximately 10-15% of women with recurrent pregnancy losses. Congenital abnormalities include a double uterus, uterine septum, and a uterus in which only one side has formed. Asherman's syndrome (scar tissue in the uterine cavity), Uterine fibroid, uterine polyps are acquired abnormalities that also cause recurrent miscarriage.

Antiphospholipid Syndrome

Atiphospholipid syndrome causes for 3-15% of recurrent miscarriages. Women with antiphospholipid test positive for anticardiolipin antibodies and lupus anticoagulants. Secondary blood tests performed at least 6 weeks later confirm the diagnosis. Women with high levels of antiphospholipid antibodies can improve pregnancy outcomes by the use of aspirin and heparin.

Thrombophilias

Inherited thrombophilias disorders raise a risk of serious blood clots. It increases the risk of fetal death in the second half of pregnancy. However, there is no testing or treatment for women with thrombophilias in the first half of pregnancy.

Male Factor

Abnormal integrity of sperm DNA affects embryo development and possibly increases miscarriage. However, it is still unknown how often sperm defects contribute to recurrent miscarriage.

Unexplained

No explanation is found in 50% to 75% of couples with recurrent pregnancy loss.

What tests are required for repeated miscarriage?

Most obstetricians will ask for tests after the second miscarriage and not wait for the third miscarriage. The two common tests are a blood test for the presence of antiphospholipid antibodies and an evaluation of abnormalities of the uterus. A quality ultrasound scan, or a hysteroscopy, will reveal abnormalities of the uterus that could have lead to repeated miscarriages.

If there have been three or more miscarriages, a chromosomal test for the couple is usually done. A chromosomal abnormality from either parent can pass down to the fetus and cause a miscarriage. However, these couples have a 75% chance of having a normal pregnancy.

Western Treatment

Individuals with a chromosomal or genetic abnormality is found are often referred for genetic counselling. The couples may choose to undergo prenatal genetic studies during pregnancy to check the genetic make-up of the offspring with either chorionic villus sampling (a piece of placenta biopsied late in the first trimester or early in the second trimester) or amniocentesis (removing some amniotic fluid for analysis). In vitro fertilization with pre-implantation genetic disorders can be done. With this process the women takes shots for several days so that many eggs grow in her ovaries. The eggs are then retrieved from the ovaries in a minor surgical procedure. One sperm is injected into each egg and the embryo is allowed to grow. One cell of the embryo is then biopsied and the genetic make-up is analyzed to avoid the transfer of an affected embryo.

If a uterine abnormality is found, surgery may be performed, depending on the defect.

If antiphospholipid syndrome is diagnosed, medications that reduce blood clot formation may be given.

If thyroid dysfunction or diabetes are diagnosed, specific medications can be prescribed.

Surgery

If the woman suffers from uterine abnormalities such as scarring or divisions, surgery can help to repair the uterus. This can help to ensure better implantation and growth of an embryo.

Chromosome Analysis

Health care providers can perform tests on the couples and on the fetus to determine if chromosome abnormalities may be contributing the miscarriage. If chromosomal abnormalities are present, a genetic counselor can advise a way to reduce the chance of having a child with a genetic disease or deformity.

Hormone Therapy

Human chorionic gonadotropin (hCG) can help to increase the chance of carrying a pregnancy to term.

Anticoagulants

If a blood disorder proves to be contributing to the recurrent miscarriage, anticoagulants can be administered to help improve blood circulation to the placenta. Low dosage of aspirin and heparin are used to treat these blood disorders.

Western Treatment Conclusion

No matter what the results of the work-up are, the chance for a successful future pregnancy is high as 77% if the work-up showed no abnormalities, and 71% if an abnormality was found.

Traditional Chinese Medicine Analysis

According to Traditional Chinese Medicine philosophy, the focus must determine the underlining causes of recurrent pregnancy loss.

There are six underlining causes:

1. Deficiency of kidney and spleen, disharmony of chong and ren meridians.

The kidney is considered as ‘the origin of congenital constitution’. It stores essence, dominates growth, development, and reproduction. The spleen is ‘the material basis of the acquires constitution’, and ‘the source of qi and blood’. The chong channel is the sea of blood and the ren channel is the sea of yin channels which is arising from the uterus in women and is also related to conception. Both are responsible for blood supply to the fetus. A kidney and spleen deficiency will lead to an inadequate quantity of essence and blood, and disharmony of chong and ren channels. As a consequence the fetus cannot be nourished and miscarriage

occurs.

2. Deficiency of kidney qi with blood stagnation in the uterus:

Women born with a constitutional kidney qi deficiency, or who have taken the oral contraceptive pill for a long term, or have had more than one consecutive miscarriage, or has had many failed IVF attempts, or have used several strong hormonal drugs can impair the kidney qi and cause inadequate essence or blood stagnation in the uterus. Kidney qi deficiency causes the fetus to be devoid of blood supply and stops growing and, as a result, causes miscarriage.

3. Deficiency of qi and blood:

The spleen and stomach transport and transform the food we eat into usable nutrients and energies, which are considered as “the source of qi and blood”. A spleen or stomach deficiency could cause inadequate blood production and the sinking of qi which fails to nourish and hold the fetus leading to a miscarriage.

4. Yin deficiency with blood heat:

A woman born with a constitutional yin deficiency or who has long term emotional factors such as stress, worry, anxiety, fear, anger, or grief can cause liver qi stagnation. This turns into liver fire and blood heat, or heat syndrome such as infection during pregnancy. The heat will attack the fetus in the uterus and cause a miscarriage.

5. Damp heat stagnation in the uterus:

Severe endometriosis or fibroids have been inflamed or urinary track infections during pregnancy can produce excessive heat and damp in the body that causes the stagnation in the uterus. This causes disharmony of qi and blood which affects the fetus growth and development, leading to a miscarriage.

6. External factors and traumatic injuries

Any falls, accidents, impacts, or physical work may impair the chong and ren channels, causing disharmony of qi and blood. This affects the fetus growth and development and can lead to miscarriage.

Differentiation and Treatment

There are six differentiation diagnosis and treatment protocols:

1. Kidney yang and spleen qi deficiency:

This is commonly seen in women with luteal phase defect which can cause miscarriage in the early stage if pregnancy is achieved.

Symptoms:

Pain in the lower back, sinking sensation in the lower abdomen, vaginal bleeding during early pregnancy, dizziness, and frequent urination and feeling cold. Pale tongue and a weak pulse.

Treatment Principle:

Strengthen kidney yang and spleen qi and warm the uterus to calm and nourish the fetus.

Acupuncture Points:

DU20 (Baihui), UB17 (geshu), UB20 (Pishu), UB23 (Shenshu), ST36 (Zusanri), LI3 (Taixi).

Moxabustion Points:

SP1 (Yinbai)

Chinese Herbal Formulas:

Shou Tai Wan (Foetus Longevity Pill), Nuan Gong Yun Zi Wan (Warm Uterus to Support Conception Pill).

If patient has had previous miscarriage:

Tai Shan Pan Shi San (Taishan Bedrock powder), Bu Shen Gu Chong Wan (Strengthen The Kidney to Secure The Chong Channel Pill).

2. Kidney qi deficiency with blood stasis:

It is more likely to occur in women who have autoimmune disorders or a blood clotting disorder called anti-phospholipid syndrome. Miscarriage can happen at any stage of the pregnancy.

Symptoms:

Backache or sore back, fatigue, vaginal bleeding or spotting with dark brown blood. It causes the slow developing and growing fetus. Pale tongue and a weak pulse.

Treatment Principle:

Strengthen kidney yang and spleen qi, warms the uterus to calm and nourish the fetus.

Acupuncture Points:

DU20(baihui), UB17(Geshu), UB18(Ganshu), UB23(Shenshu), SP10(Xiehai), KI4(Fuliu)

Chinese Herbal Formulas:

Shou Tai Wan(Foetus Longevity Pill) combined with Gui Zhi Fu Ling Wan(Cinnamon Twig and Poria Pill)

3. Qi and blood deficiency:

This often occurs in early pregnancy for women with hypothyroidism, LPD, or incompetent cervix.

Symptoms:

Tired and weak, shortness of breath, shrinking sensation in the lower abdominal area, bloated stomach, light bleeding with a pink color, and pale complexion.

Pale tongue, fine and slippery pulse.

Treatment Principle:

Tonify the qi and blood, strengthen the kidney to boost the essence and nourish the foetus.

Acupuncture Points:

DU20(Baihui), EX-HN3(Yintang), PC6(neiguan), ST36(Zusanli)

Moxabustion Points:

UB17(geshu), UB18(Ganshu), UB20(Pishu), SP1(Yinbai)

Chinese Herbal Formulas:

Tai Yuan Yin(Foetus Source Beverage), Gui Pi Wan(Restore the Spleen Pill), Bu Zhong Yi Qi Wan(Tonify the Middle to Augment the Qi Pill)

4. Yin deficiency with blood heat

This is likely to occur in women producing anti-sperm antibodies, natural killer cells, or hyperthyroidism.

Symptoms:

Vaginal bleeding in the early pregnancy with bright red blood, restless fetus, abdominal pain, constipation, irritation, restlessness, anxiety, disturbed sleep, hot palms, hectic fevers, and night sweats. Red tongue with a yellow coating or no coating at all, taut, slippery and rapid pulse.

Treatment Principle:

Nourish the yin and blood, clear the heat and calm the fetus.

Acupuncture Points:

EX-HN3(Yintang), Sp10(Xiehai), LI11(Quchi), PC6(Neiguan), HT7(Shenmen), KI3(Taixi), LV3(taichong), UB17(Geshu), UB18(ganshu).

Chinese Herbal Formulas:

Bao Yin Jian(Protect the Yin Beverage), Yang Xie An Shen Wan(Nourish the blood to Calm the Shen Pill).

5. Damp heat stagnation in the uterus

This is likely to occur in the second or third trimester after infection.

Symptoms:

Abdominal pain, bloated stomach, fever, itchy skin, headaches, restlessness, slow

or ceased developing fetus. Dark, red tongue and yellow greasy coating, slippery and rapid pulse.

Treatment Principle:

Clear excess heat and remove the dampness, detoxifies the blood to nourish the foetus.

Acupuncture Points:

EX-HN3(Yintang), PC6(Neiguan), LI11(Quchi), SP10(Xiehai), ST36(Zisanli), SP9(Yinlingquan), UB17(Geshu), UB18(Ganshu), UB20(Pishu), LV3(Tahichong).

Chinese Herbal Formulas:

Huang Qin, Jin Yin Hua, Lian Qiao, Chi Shao Yao, Sheng Di Huang, Dan Sheng, Mu Dan Pi, Huang Bai, Fu Ling, Yin Chen.

6. Traumatic injuries

Symptoms:

Lower abdominal pains with sinking sensation, backache, restless fetus, vaginal bleeding in the worst case, and pale complexion. Purple tongue, lethargy and weak pulse.

Treatment Principle:

Tonify the qi and nourish the blood, invigorate the kidney, calm the fetus, tranquilize the spirit, and ease the mind.

Acupuncture Points:

DU20 (Baihui), EX-HN1 (Shi Sheng Cong), EX-HN3 (Yintang), PC6 (Neiguan), ST36 (Zusanli), HT7 (Shenmen).

Chinese Herbal Formulas:

Gui Pi Wan (Restore the Spleen Decoction), combined with Shou Yai Wan (Foetus Longevity Pill)

Conclusion

Miscarriage is very personal, devastating event for a woman. The only greater tragedy that a woman can experience is a recurrent miscarriage. Years of fertility difficulty and conception treatment can only add to this pain and suffering.

In some cases, the miscarriage would not be investigated until it has happened at least three times. Sometimes the best advice and direction they are given is to simply wait and see. If they ever manage to conceive again, they would go through an emotional roller coaster and wait with tremendous stress and anxiety which can only worsen their condition even further and increase the risk of miscarriage. Therefore it is necessary to combine Chinese medicine and

Western medicine to achieve the best possible result.

It is essential to the strengthen the kidney and tonify the blood to encourage their body to be more able to maintain the pregnancy to full term. Soothing liver qi and nourishing heart blood to ease their mind is also necessary. However, pregnant women who have conceived through IVF, ICSI or IUI must be extra cautious about Chinese herbs, especially if they have immunological disorders. If that is the case, acupuncture treatment is always a viable option to achieve their pregnancy.

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