



PREVENTION OF ABORTION IN FIRST TRIMESTER

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ABSTRACT

Pregnancy is an exhilarating experience. It is the period of time when a fetus develops inside a woman's uterus and ends with the birth of the infant. The onset and degree of pregnancy symptoms will vary within women. Many women experience them within days of conception the early pregnancy symptoms generally can be felt once implantation occurs (4- 10 days from ovulation) and will lessen after the first trimester. Care during pregnancy includes proper nutrition, vaccination, avoidance of drug abuse avoidance of work place hazards and toxic substances¹.

Pregnancy could however turn into a night mare or tragedy. The pregnant women should avoid all drugs and medicines as much as possible. Some drugs can be harmful when used at any time during pregnancy; however, are particularly damaging at a specific stage of pregnancy. Continuing drug use increases the risk of miscarriage and premature delivery.²

KEYWORDS : Abortion, fertility diet , Stress,Infections, trisomy,polyploidy,monoxomy

Introduction:

Abortion is the most common type of pregnancy loss, according to the American College of Obstetricians and Gynecologists (ACOG). Studies reveal that anywhere from 10-25% of all clinically recognized pregnancies will end in abortion. Chemical pregnancies may account for 50-75% of all abortions. This occurs when a pregnancy is lost shortly after implantation, resulting in bleeding that occurs around the time of her expected period. The woman may not realize that she conceived when she experiences a chemical pregnancy.^{1,3}

Abortion:

Abortion is the process of partial or complete separation of the products of conception from the uterine wall with or without partial or complete expulsion from the uterine cavity before the age of viability.

Causes of Abortion:

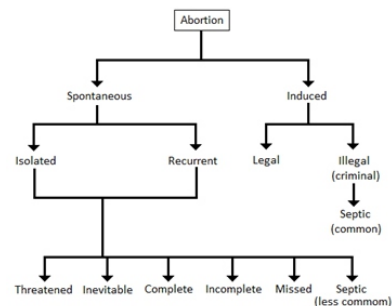
- **Genetic factors-**
- Chromosomal abnormality includes autosomal trisomy, polyploidy, monoxomy X(45x), structural chromosomal rearrangement.
- **Endocrine and metabolic factors-** Luteal phase defect, deficient progesterone, thyroid abnormalities (hypothyroidism or hyperthyroidism), diabetes mellitus.
- **Anatomical abnormalities-** Cervico-uterine factors include cervical incompetence, congenital malformations of the uterus, uterine fibroid and intrauterine adhesions.
- **Infections: Viral-** Rubella, cytomegalovirus, varicella, vaccinia or HIV
Parasitic- Toxoplasma, malaria. **Bacterial-** Ureaplasma, Chlamydia, brucella
- **Immunological Disorders:** Autoimmune disease - Antinuclear antibodies, Anti DNA antibodies (Double or single stranded), Antiphospholipid antibodies include lupus anticoagulant & anticardiolipin antibodies, spiral artery & placental intervillous thrombosis, placental infarction & fetal hypoxia and Alloimmune disease - Paternal Antigens.
- **Antifetal antibodies-** Rh-negative women with anti-D antibodies.
- **Maternal medical illness-** Cytotoxic heart disease, hemoglobinopathies.
- **Blood group incompatibility-** Rh incompatibility is a rare cause of death of the fetus 28th week. Couple with group 'A' husband and group 'O' wife have got higher incidence of abortion.
- **Premature rupture of membrane-** Paternal factors - sperm chromosomal anomaly, thrombophilias.
- **Environmental factors-** Smoking, alcohol X-ray exposure upto 10 rad antineoplastic drugs, contraceptive agents, drugs-

chemicals-noxious agents.

- **Unexplained**^{1,2,3,4}

Types of Abortion:

1. **Spontaneous : Isolated & Recurrent-** Threatened, Inevitable, Complete, Incomplete, Missed & Septic
2. **Induced :** Legal (MTP), Illegal^{1,2,3,4,9}



Signs and Symptoms of Abortion: (Warning signs)

- Mild to severe back pain
- Weight loss
- White pink mucus
- True contractions
- Brown or bright red bleeding with or without cramps
- Tissue with clot like material passing from the vagina.
- Sudden decrease in signs of pregnancy^{1,2,3,4}

PREVENTION OF ABORTION:

i) Exercise regularly:

- 1) **Kegel exercise-** Pregnant women who perform Kegel exercises often find they have an easier birth. Strengthening these muscles during pregnancy can help you develop the ability to control your muscles during labor and delivery. Toning all of these muscles will also minimize two common problems during pregnancy: bladder leaks and hemorrhoids.
- 2) **Swimming-** Many health care providers and fitness professionals say swimming is the safest exercise for pregnant women. Swimming keeps your body toned without adding weight and stress to your joints. Swimming raises your heart rate and allows you to enjoy a safe cardiovascular exercise that is not likely to cause overheating. Another benefit of swimming during pregnancy comes from the safety of not falling. During pregnancy, your balance will be off making you more susceptible to tripping or falling.
- 3) **Walking-** Walking is very beneficial because it is safe for your body. It is easier on your knees than running and can be easily worked into your schedule. Start slowly and be sure you stretch well before you begin. Set realistic goals and wear good shoes

to decrease the risk of falling or pressure on your feet

- 4) **Bicycling**-The best thing about biking is that the bike supports your weight, so there is less stress on your body. A stationary bike is great exercise because there is a low risk of falling. As you grow, your center of gravity is shifting so you are at an increased risk of falling. As your abdomen grows, it can put a lot of stress on your back. Start slowly and do not over-exert yourself.
- 5) **Yoga**- Yoga has a long standing reputation for relieving stress and pressure on your body. Most forms of yoga will be safe for you and your baby, as long as they are not excessively rigorous. Some yoga instructors offer special classes for pregnant women. Avoid lying flat on your back for extended periods of time and try not to overstretch.
- 6) **Dance**- Dancing can be done in your home or at a gym that offers special classes for pregnant women. Avoid a lot of spinning, leaping, and jumping.

Exercises to Avoid During Pregnancy: Skiing, Water Skiing, Horseback Riding

Tips to Use When Exercising:

-Don't wear tight clothes, but do wear a sports bra that will give mother good support.

-Wear shoes that have good support and are not slippery so mother won't fall. Also make sure to breathe deeply, and drink plenty of water.

-Avoid jerking motions and lying on the back for extended periods of time.

-Stop exercising if mother have any bleeding, dizziness, chest pain, faintness, shortness of breath, contractions, nauseous feelings, leaking fluid from the vagina, or decreased fetal movement.

- ii) **Diet: Eat healthy**- It's better to consult a dietician as the diet that the expecting mother takes is important for the growth of the baby. Vitamins and minerals are good for both, so vegetables and fruits should be included in the diet. Limit the intake of caffeine (tea, coffee).

Following the fertility diet-

- **Consume organic vegetable and fruits daily:**
Avoid eating conventional product that contains herbicides and pesticides that may negatively impact on fertility.
- **Choose organic, grass-fed, whole fat and raw dairy:**
Conventional dairy sources may contain hormones and antibiotics that can increase estrogen levels in the body and harm fertility. Eat nut based milk but do not drink soy milk
- **Eat cold water fish high in omega-3 fatty acids:**
In addition to being rich in protein and vitamin A, fish also contain healthy fatty acids that help to increase hormone production, reduce inflammation and ensure a regular menstrual cycle.
- Aim to eat wild salmon, cod and halibut, but avoid farmed fish whenever possible as farmed fish may contain antibiotics and food coloring.
- Do not eat large deep fish like ahi tuna, swordfish and sea bass as these fish may be high in mercury which can be harmful to the body.
- **Eat only to grass-fed, organic meat:**
Avoid consuming hormones and antibiotics that may increase estrogen levels by choosing eat only grass-fed, organic meat. Protein is essential during pregnancy, but be sure to avoid conventional meats. If mother is concerned about endometriosis, limit consumption of red meat. Be sure mother only consumes poultry that is marked as free range, cage free or organic as well.
- **Choose whole grain over processed grain:**
Whole grains are high in fiber and essential vitamins. Fiber is particularly important for the mother diet as it helps the body

remove excess hormones and help to keep mother blood sugar at a healthy level. Processed grains lack the nutrients necessary for a healthy pregnancy.

- **Consume fiber with each meal:**
In addition to regulating hormone levels and blood sugar levels, fiber also promotes healthy digestion. Try to eat fibrous fruits ,vegetables,dark greens, beans, and whole grains with each meal.
- iii) **Manage stress:** Pregnancy is a wonderful and joyous time, but can also be filled with doubt and anxiety. There are a number of circumstances that can lead to stress while you are pregnant, including fluctuating hormone levels, uncertainty about the future, physical discomfort, or a preexisting mental disorder. Research indicates that consistent high anxiety levels may affect the development of the baby.
If mother is stressed, she may experience

difficulty sleeping,
headaches,
racing pulse, and
obsessive thoughts

Stress management:

- **Discover triggers** — is there anything specific that makes mother anxious. Tell the mother Pay attention to what is happening when she feel most stressed out.
- **Get Some Rest** — Exhaustion or irregular sleeping habits can lead to increased negative emotions, including stress. Advice mother to take complete rest.
- **Eat healthy** — A well-balanced diet can help reduce stress
- **Exercise** — Thirty minutes of mild to moderate exercise several days a week is enormously beneficial. It can also help lower cortisol levels, which is the hormone that causes anxiety.
- **Meditations** — Meditating can help clear our mind and lower our stress levels.
- **Therapy** — If mother stress levels become unbearable, refer mother to therapist, to discuss possible underlying issues beneath the mother anxiety, as well as healthy ways to cope with her feelings.
- iv) **Keep weight within the healthy limits:** Weight must be checked at every visit. Obesity is associated with an increased risk of gestational diabetes and pregnancy induced hypertension.
- v) **Take folic acid daily:** To reduce the baby's risk of developing a neural tube defect, experts recommend that to take 400 - 600 micrograms (mcg) of folic acid a day. Mother need to begin this dosage one to two months before plan to conceive. Folic Acid helps to reduce the chance that baby will be born with birth defects. For Ex. Neural tube defect ,Spina bifida, Anencephaly etc.
- vi) **Alcohol and smoking:** It is a known fact that consuming alcohol and smoking are injurious especially to the expecting mother. A woman who drinks alcohol while she is pregnant may harm her developing baby (fetus). Alcohol can pass from the mother's blood into the baby's blood. It can damage and affect the growth of the baby's cells. Brain and spinal cord cells are most likely to have damage. It can damage and affect the growth of the baby's cells. Brain and spinal cord cells are most likely to have damage. The term fetal alcohol spectrum disorder (FASD) describes the range of alcohol effects on a child. Alcohol can cause a child to have physical or mental problems that may last all of his or her life
- vii) **Regular medical checkup:** Health check for -Both the father and the mother must first consult the doctor to know that they are fit to have a baby. If any one of them is sick or weak then it may happen that the baby is unhealthy and it can lead to a miscarriage.
- viii) **Limit or eliminate caffeine:** While trying to get pregnant, do not drink more than two cups coffee (200 ml) per day. Caffeine is drug that can affect mother hormone levels and is not healthy in large quantity harm the fetus in the womb and one of the causes of

abortion.

- x) Avoid contact sports or activities that have risk of injury.**
- xi) Emotional preparation and /or treatment:** Unfortunately, miscarriage can affect anyone. Women are often left with unanswered questions regarding their physical recovery, their emotional recovery and trying to conceive again. It is very important that women try to keep the lines of communication open with family, friends and health care providers during this time
- xii) Medical conditions management, if any:** If mother has any persistent problem of hypertension, thyroid, or diabetes, first bring them under control and then plan a baby
- xiii) STD Checkup:** Untreated sexually transmitted diseases can increase the risk of a miscarriage. Be sure to have mother check herself for STDs such as gonorrhoea, syphilis, HIV and herpes as these diseases may increase the risk of miscarriage.
- xiv) Avoid unpasteurized dairy products and raw meat:** Infections caused by these products include listeria and toxoplasmosis, which can increase the risk of abortion. Although rare, these infections can be avoided by simply making sure that all the meat is cooked and the dairy products are pasteurized.
- xv) Explore the possibility of taking progesterone:** A female sex hormone progesterone causes secretory changes in the uterine lining that are necessary for a fertilized egg to thrive. Some abortion may be a result of inadequate progesterone secretion. During the first trimester of pregnancy, progesterone may help to reduce the risk of abortion.
- xvi) Travel:** Travel by vehicles having jerks are better to be avoided specially in first trimester and at last 6 weeks. The long journey is preferably being limited to the second trimester. Rail route is preferable to bus route. Travel in pressurized aircraft offers no risk.
- xvii) Vaccination:** Tetanus-immunization against tetanus not only protects the mother but also the neonates.
- xviii) Rest and sleep:** Mother required total 10 (8 hours at night and 2 hours at afternoon) hours rest during pregnancy.
- xix) Coitus:** Coitus should be avoided during the first trimester preferably during the time of missed periods and also during the last 6 weeks for fear of abortion in the former and introduction of infection and premature labor in the later period.

Conclusion:

Pregnancy is wonderful and very joyful news in most of the women's life. Becoming pregnant and giving birth to a baby is a wonderful movement and feeling of satisfaction and accomplishment in her life. The whole family look forward to welcoming the baby. But any interruption in achieving this goal makes women's life very much annoying, frustrating and feeling of incompleteness. Therefore abortion is one of painful events in women in achieving her goal in continuing pregnancy. So there is a need to help the pregnant mother to take care about her pregnancy and health professional educate mother regarding prevention of abortion.

References:

- 1) Annamma Jacob a comprehensive textbook of midwifery & gynecological nursing 3rd ed. new delhi : jaypee brothers; 2012. page no. 255-261.
- 2) Datta D. C. Textbook of obstetrics including perinatology & contraception .7th ed . kolkotta : new central book agency; 2011. page no. 170-176
- 3) Kamini A. Rao, Handbook of obstetric emergencies, 2nd edition, new delhi : jaypee brothers; 2011. page no. 4-5
- 4) Dafftry N. Shirish, Manual of obstetrics. 2nd edition. New Delhi: Reed Elsevier India (P) Ltd.; page no. 691-692.
- 5) Littleton Y. Lynna, Maternity Nursing Care. 1st edition. New Delhi: Thopson Delman Learning Publication (P) Ltd. (Jaypee); Page no. 376-388.
- 6) Pillitri Adele, Maternal and Child Health Nursing. 6th edition. New Delhi: Lippincott Williams & Wilkins (P) Ltd.; 2009. page no. 595-601.
- 7) Kumari Neelam, Midwifery & Gynaecological Nursing. 1st edition. New Delhi: Pee Vee Publication (P) Ltd. 2011. Page no. 35-40
- 8) Klossner N. Jayne, Introductory Maternity Nursing. 1st edition. New York: Lippincott Williams & Wilkins (P) Ltd.; 2006. page no. 392-395.
- 9) <http://pregnancyandlabour.blogspot.com>