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Review Article

EXTRA- UTERINE PREGNANCY AND ITS MANAGEMENT

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ABSTRACT

An ectopic pregnancy comes under the gynecological emergencies in which the early embryo is embedded outside the decidual region of womb. The causes of extra uterine gestation depends on various factors which leads to delay in the movement of zygote through the tube by the help of cilia which is known as ectopic pregnancy. This topic deals with the causes, diagnosis , prevention and the management of ectopic pregnancy.Mainly three types of extra uterine pregnancy are diagnosed like tubal, cervical and ovarian. Tubal pregnancy is the common one. Signs and symptoms of acute and chronic ectopic pregnancy are having the clinical triads and other common aggravated symptoms of normal pregnancy are discussed. The clarification of the correct techniques used to diagnose the pregnancy including medical history, ultrasonography, pregnancy tests and laproscopy was also discussed. The assessment of the successful management tools of ectopic pregnancy which includes medical treatment of chemotherapeutic drugs and surgical management was explained.

Keywords

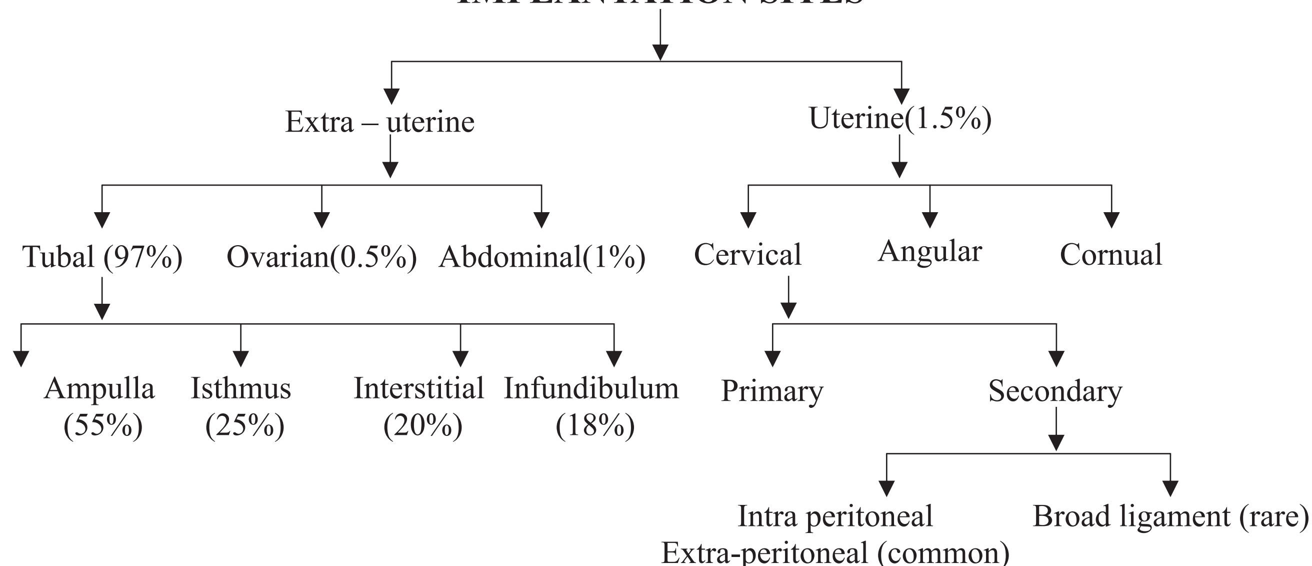
Ectopic pregnancy, diagnosis, prevention, management

INTRODUCTION

An extrauterine gestation in which fertilized egg has embedded any other part of the uterus. But in case of normal pregnancy , an early embryo which is a fertized ovum form a zygote after fertilization by the sperm inside the fallopian tube at the ampulla region and attaches in the upper part of the womb over the endometrium.

DEFINITION

The fertilized ovum (blastocyst) normally implants in the decidual edge of the womb. If zygote embedded in any other part of the uterine cavity rather than the decidual border of the uterus is known as extrauterine pregnancy.



EXTRA-UTERINE PREGNANCY

TUBAL PREGNANCY

Ectopic pregnancy within a uterine tube called tubal pregnancy.

Tubal pregnancy incidence is increased. The incidence varies from 1 in 300 to 1 in 150 deliveries.

CAUSES

Factors delaying or preventing migration:

PID increases the risk of ectopic pregnancy by 6-10:-

- Narrowing of tubal lumen.
- Adherence of tube due to tangling
- Due to chalamydial infection

IATROGENIC

a) Contraception failure

- ✓ **Contraceptive use – insert and copper containing IUCD** prevents both intrauterine and extra uterine pregnancy. But if women conceive with IUCD in place the higher chance of the tubal pregnancy.
- ✓ **Hormonal contraceptive –** progesterone only pill and sub dermal implant protect against intrauterine ectopic pregnancy, but if pregnancy does occur there is for 4 to 10 % chance of ectopic pregnancy with the mini pill.

b) Tubal surgery- tubal reconstructive surgery to improve the fertility increases the risk of tubal pregnancy significantly. Preexisting tubal pathology, impaired tubal motility, kinking of the tube are the contributing factors,

c) ART- Ovulation induction and IVF and GIFT procedure.

OTHERS

a. Previous ectopic pregnancy

b. Abortion- in safe abortion the risk of the pregnancy because of secondary post operative infection and improperly performed procedure

c. Infertility –in nulliparous women undergoing infertility treatment. Hormonal alteration causes by clomiphene citrate and gonadotropin ovulation induction cycle make caused tubal implantation

d. Smoking

e. Zygote abnormalities – those abnormal pre- embryos are more likely to result in abnormal or ectopic implantation.

f. Ovarian factors – fertilization of an unextruded ovum, Transmigration of ovum into the contra lateral tube with subsequent delayed and faulty implantation can results in extrauterine gestation.

Circumstances accelerating implantation of the blastula with in the fallopian tube

- Premature trophoblastic activity because of early deterioration of ofzona pellucida.
- Tubal endometriosis.

CLINICAL FEATURES

Clinical features are in three types:

1. Acute.
2. Unruptured.
3. Sub-acute or chronic or old.

Acute ectopic

It is less common about 30% . It is related with manifestations of fallopian burst along with peritoneum bleeding.

Symptoms

- **A short period of amenorrhea:- (75%)** of 6-8 weeks or a delayed period or slight spotting on the expected date of the period is usually present. However in disturbed interstitial pregnancy, amenorrhea usually exceeds 10-12 wks.

- ✓ Bluish discolouration surrounding the umbilicus which is known as cullen's sign.
- ✓ An indication of intraperitoneal hemorrhage, especially in ruptured ectopic pregnancy,

1) Bimanual examination is painful

- ✓ Vaginal mucosa pale
- ✓ Extreme tenderness on the cervix

DIAGNOSIS OF ECTOPIC PREGNANCY

1. **Blood examination-**

- ✓ Hemoglobin
- ✓ ABO and Rh grouping
- ✓ Total white cell count and differential count
- ✓ ESR- varying degree of leucocytosis and raised ESR

2. **Culdocentesis**
3. **Estimation of hCG**- a single estimation hCG level either in the serum or in urine confirms pregnancy but cannot determine its location.
4. **Sonography-** thediagnostic features are-

- ✓ Absence of intrauterine pregnancy with a positive test.
- ✓ Fluid in the pouch of douglas.
- ✓ Rarely cardiac motion may be seen in an un ruptured tubal ectopic pregnancy.

5. **Colour Ultrasonography:** to find out about the shape of placenta and pattern of blood flow in various parts of womb.
6. **Laparoscopy**
7. **Laparatomy-** its beneficial when in doubt.
8. **Serum progesterone**- level greater than 25ng/ml is suggestive of viable intrauterine pregnancy whereas level less than 5ng/ml suggests an ectopic pregnancy.

MANAGEMENT OF ECTOPIC PREGNANCY ACUTE

- **Anti shock treatment**;

- ✓ Ringer solution is started
- ✓ Arrangement is made for blood transfusion

Laprotomy- indication are: Patient haemodynamically unstable

- ✓ Laparoscopy contraindicated
- ✓ Evidence of rupture.

- **Abdominal pain:-**pain is acute, agonizing or colicky in nature. The pain is located in the lower abdomen on one side but gradually spreads all over the abdomen. The causes of pain are:- distension of tube by blood, colic of the tubal muscle, peritoneal irritation.
- **Vaginal bleeding:-**is slight, sanguineous or dark colored and usually continuous.
- Symptoms of sickness and vomiting

ON EXAMINATION

1. Pallor is usually severe and depend upon the amount of internal hemorrhage
2. Features of shock- rapid and feeble pulse, fall of the blood pressure and cold and clammy extremities.
3. Abdominal examination- the abdomen is tense, tumid and tender, no mass is usually felt.
4. Bimanual examination-

- ✓ Vaginal mucosa- blanched white
- ✓ Uterus seems normal in size
- ✓ Extreme tenderness on fornix palpation
- ✓ No mass is felt through the fornix

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2) UNRUPTURED TUBAL ECTOPIC

SYMPTOMS- Presence of delayed periods or spotting,

SIGNS- Bimanual examination

- Size of the uterus is less than the weeks of gestation.
- A small mass is felt by the help of vaginal examination through one fornix.

3) CHRONIC ECTOPIC

1) Amenorrhea
2) Lower abdominal pain
3) Vaginal bleeding
4) Other symptoms- dyuria, frequency or retention of urine, rise of temperature

ON EXAMINATION

1) The patient looks ill
2) Varying degree of pallor
3) High pulse rate
4) Abdominal examination-

✓ Tenderness

✓ A mass in the lower abdomen

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4) Abdominal examination-

✓ Tenderness

✓ A mass in the lower abdomen

✓ Salpingectomy is done.

CHRONIC ECTOPIC

1. Client is to be kept with in the hospital for observation , all the lab examinations are to be done and the client is moved for laprotomy at earliest.

UNRUPTURED TUBAL PREGNANCY

Management-

1. Expectant
2. Conservative
3. Salpingectomy

A. Expectant management: Indications are

✓ Falling hCGtitre

✓ Ectopic mass < 4cm

✓ No evidence of bleeding or rupture

B. Conservative management-itmay be either medical or surgical

1. Medical management

✓ Number of chemotherapeutic agents have been used

✓ Drugs- Methotrexate, potassium chloride, Prostaglandin, hyperosmolar glucose or acetomycin.

✓ Single dose of methotrexate 50mg is given intramuscularly.

- **Conservative surgery**- is done by laproscopically.

✓ A procedure in which the matter of fallopian tubes are extracted by creating an opening called as linear salphingostomy.

✓ Part of the tube is cut and ligated the other ends is known as segmental resection.

C. Salpingectomy- is done when whole of the tube damaged

D. Rh-Negative women-50 microgram IM should be administered soon following operation to prevent iso immunization.

ABDOMINAL PREGNANCY

Pregnancy taking place in abdomen and outside the uterus is abdominal pregnancy.Incidence is 1 in 3000 pregnancy.

Primary: The fetus dies if the placenta is damaged appreciably but if the greater portion of the placenta remains attached to fallopian tube wall and the pheriphery of placenta grows by invading the tubes and embedded on the areas of peritoneumand adjacent structure the fetus can survive**.**

Secondary: abdominal pregnancy is almost always secondary, the primary sites being tube, ovary or eventhe uterus- the conceptus escapes out through the rent in the uterine scar. With the use of ART incidence isFound rising.

SYMPTOMS

1. Pain lower abdomen and vaginal bleeding is present
2. Symptoms of normal pregnancy are aggravated like morning sickness constipation, abdominal pain and increased fetal movement.

SIGNS IN ADVANCE PREGNANCY-

1. Contour of the uterus is not distinguishable as the Braxton -hicks contraction is absent
2. Fetal parts are felt easily and persistent abnormal attitude and position of the fetus on repeated examination is common.
3. Internal examination- the uterus is difficult to separate from the abdominal mass, if it does, it is enlarged (12- 16 weeks)

Radiological studies:

- ✓ Ultrasound : presence of uterine lining is not seen surrounding the fetus, abnormal high position of fetus with abnormal attitude, fetal parts.
- ✓ X- ray examination-

Management-

- ❖ Laprotomy without considering the weeks of gestation. As carrying on pregnancy till term is dangerous like still birth , malformations.
- ❖ Hospitalization of the patient is necessary.

OVARIAN PREGNANCY:- refers to an ectopic pregnancy that is situated with in the ovaries. Because of fertization by the sperm inside the ovaries, as egg is not released into the tube from follicles.

PATHOLOGY

Due to absence of movement of mature cell into the tubes from the graffian follicles and sperm gets entery into the follicles itself.

Signs and symptoms:

- ✓ Pain with in the abdomen
- ✓ Slight vaginal bleeding
- ✓ Hypovolemia

Diagnosis:

- ✓ It is made by the help of radiological studies.
- ✓ By the help of pelvic investigations a mass formation may be seen . but only with the help of ultrasonography will show the absence of fetus with in the womb.

Management:

- After the confirmation of diagnosis ooperectomy or salphingo-oopherectomy procedure was done.
- It is also treated with chemotherapeutic medications like methotraxate.

A CERVICAL PREGNANCY:- is an ectopic pregnancy that has implanted in the uterine endocervix. Such a pregnancy typically aborts within the firsttrimester, however, if it is implanted closer to the uterine cavity - a so-called cervico-isthmic pregnancy - it may continue longer.

Incidence

The incidence has been reported to be about 1:1,000 to 1: 16,000 pregnancies.

Diagnosis

- ✓ Diagnosis has been made by 'Rubin criteria
- ✓ Confirmation is made either by the help of vaginal examination by seeing discolouration of cervix or with the help of sonography.

Management:

- ✓ D AND C
- ✓ Medical management is chemotherapeutic drugs like methotraxate.

CORNUAL PREGNANCY:- fertilized egg situated with in the hollow area of one of the two horns of bicornuate womb.

Diagnosis

Position of round ligament which is attached to the sac and the long pedicle by which it is attached to the uterus are the diagnostic points. It is sometimes confused with interstitial pregnancy.

Treatment

Surgery includes removal of rudimentary horn. If the pedicle is short and attachment is wide, hysterectomy may have to be done.

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