ECTOPIC PREGNANCY

ANANDU MATHEWS ANTO
GOVT.MEDICAL COLLEGE
KOTTAYAM

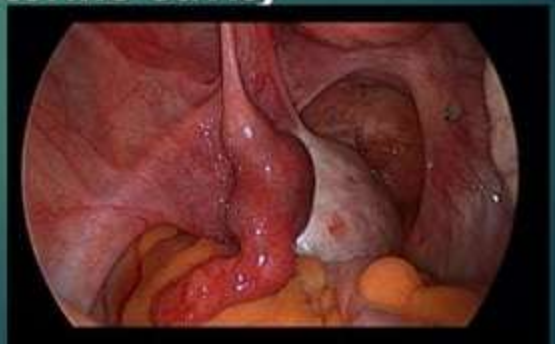
- Account for about 1-2% of reported pregnancies.

- Incidence of ectopic pregnancies are increasing now.
- <u>This can be accounted for by the following reasons</u>

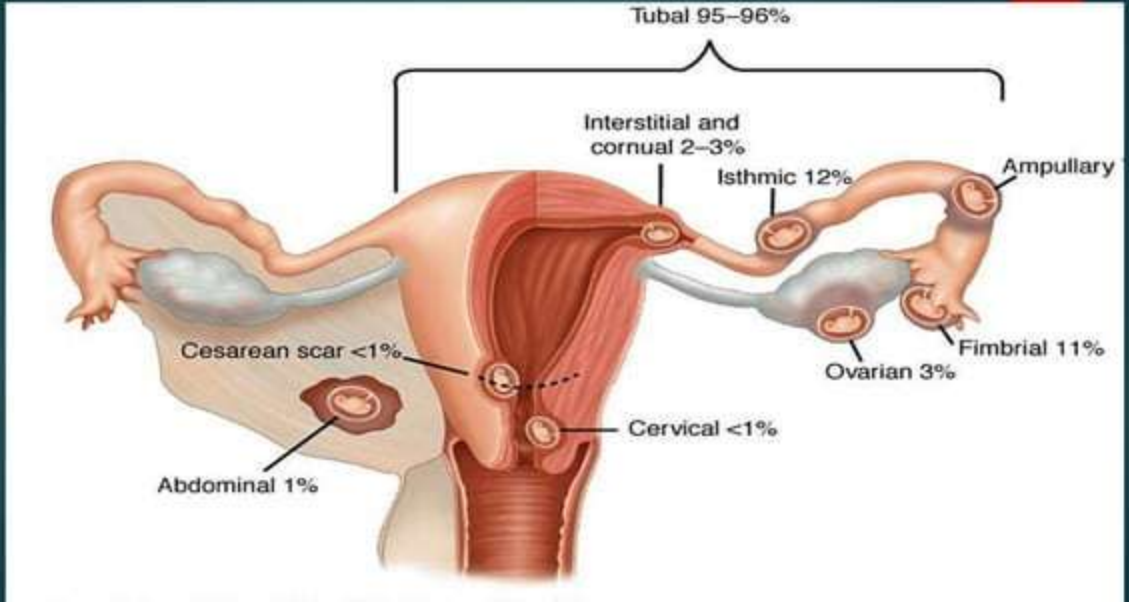
i. Greater prevalence of STD s especially chlamydial infections.
ii. Development of newer diagnostic tools with improved accuracy
iii. Tubal factor infertility .
iv. Increasing use of assisted reproductive techniques.

DEFINITION

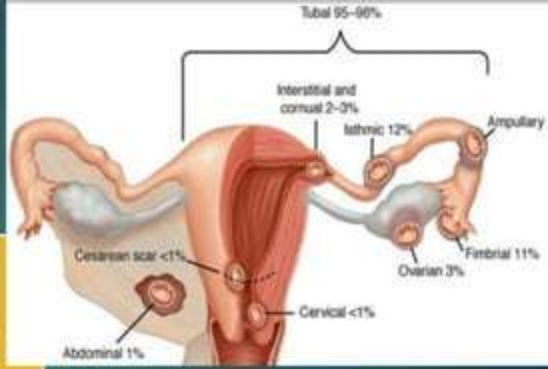
Ectopic is defined as “ a pregnancy in which the blastocyst implants anywhere other than the endometrial lining of the uterine cavity”



SITES OF ECTOPIC PREGNANCY



TUBAL ECTOPICS



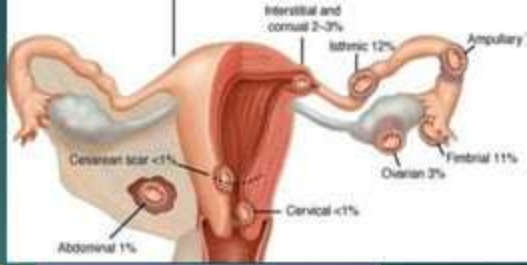
AMPULLARY(80%)

ISTHMIC(12%)

FIMBRIAL(11%)

INTERSTITIAL (2-3%)

EXTRATUBAL ECTOPICS



INTRALIGAMENTOUS

ABDOMINAL

OVARIAN

CERVICAL

CESAREAN SCAR

AETIOLOGY FOR TUBAL PREGNANCY

- Any factor that causes delayed transport of the fertilized ovum through the fallopian tube .

- Basically causes can be of two types
  1. Acquired
  2. Congenital

AETIOLOGY FOR TUBAL PREGNANCY

Acquired causes

- Pelvic inflammatory disease.
- Pelvic TB .
- Post-abortal or puerperal sepsis.
- Salpingitis isthmica nodosa.
- Assisted reproductive techniques.

Intrauterine contraceptive devices.

Cigarette smoking .

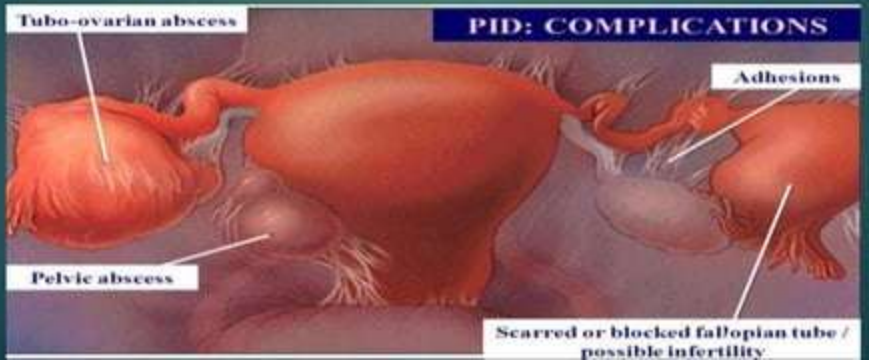
Previous ectopic

Any previous surgeries on the tube

PELVIC INFLAMMATORY DISEASE

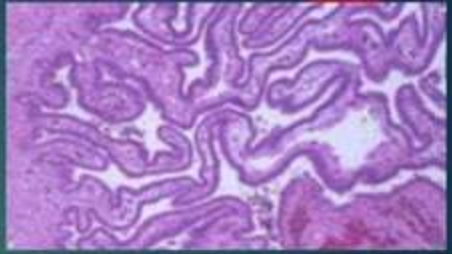
- Subclinical chlamydial infection usually leads to PID.

- Single episode PID ➡ 12% risk for ectopic .



PATHOPHYSOLOGY

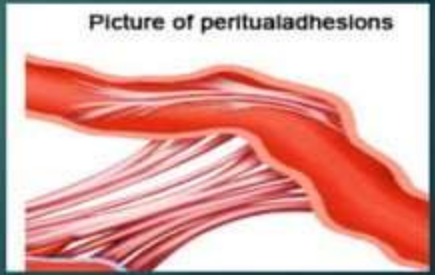
- Similar for PID ,Pelvic TB and for Post abortal/puerperal sepsis.

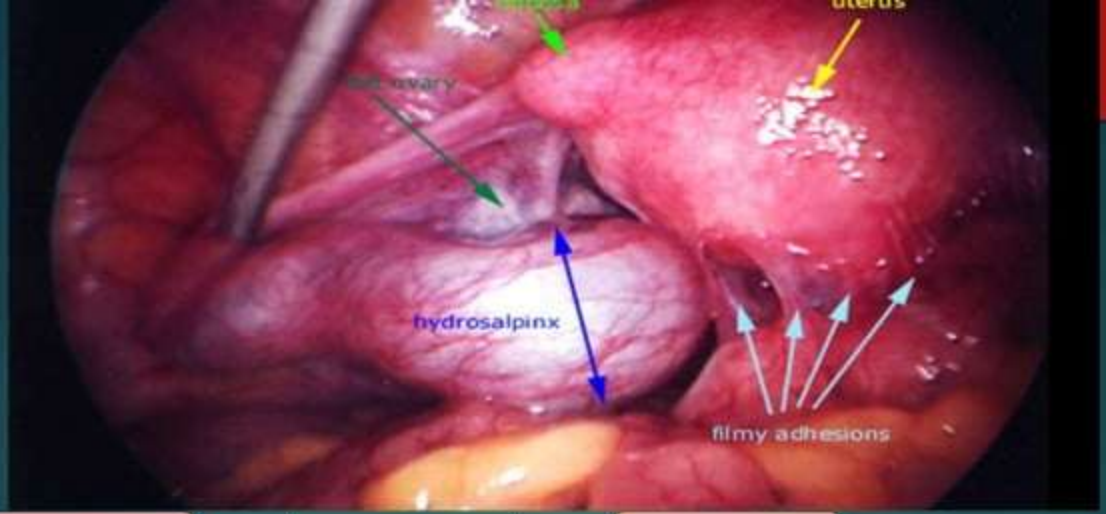


1. PID/TB/SEPSIS → ENDOSALPINGITIS → AGGLUTINATION OF TUBAL MUCOSAL FOLDS → FORMATION OF BLIND POCKETS → Entrapment of fertililized ovum in the tube

2. PID/TB/SEPSIS → Decreased ciliation → Decreased motility of fertilized ovum

3. PID/TB/PUERPERAL SEPSIS → PERITUBAL ADHESIONS → KINKING AND NARROWING OF THE LUMEN





tubal epithelium invades myometrium → Forms a diverticulum → Ovum entrapment in the diverticulum

Assisted Reproductive Techniques

- Procedures that lead to highest rates of ectopic preganacy are
  - ✓ Gamete intrafallopian transfer.
  - ✓ Cryopreserved embryo transfer.
  - ✓ In vitro fertilization.

- In a women undergoing IVF the greatest risk factors for the development of ectopic pregnancy are

A) Tubal factor infertility **B)** hydosalpinges

- Also the number of ovum being released is increased due to ovulation induction

- Other ectopics like interstitial ,abdominal, cervical, ovarian and heterotopic are common after ART

INTRAUTERINE CONTRACEPTIVE DEVICES

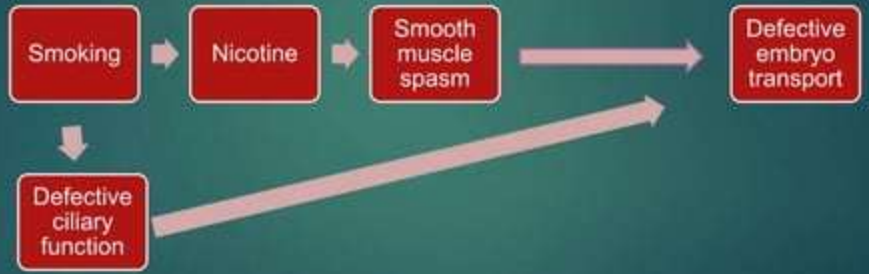
- An IUCD can **prevent an intrauterine pregnancy more effectively than a tubal pregnancy**.

Hence a conception with an IUCD in place is more often ectopic than a pregnancy without IUCD .

- IUCDs are associated **with an increased incidence of PID** leading to an increased incidence of ectopic pregnancies

Cigarette smoking

- Risk increased in women using >20 cigarettes /day(one pack per day)



PREVIOUS ECTOPICS

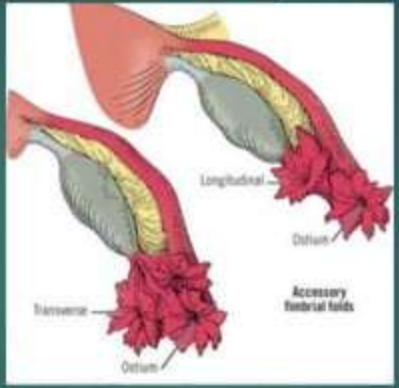
Recurrence rate is **12% after 1 ectopic** and **28% after second ectopic**.

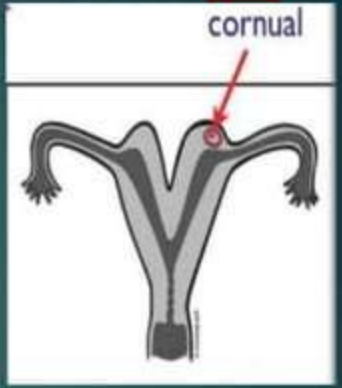
PREVIOUS SURGERIES ON THE TUBE

- Procedures like **tubal recanalization** procedures and **tube sterilization** .
- 1/3rd of pregnancies following tube sterilizations turns out to be ectopic pregnancy.
- Sterilization **using electrocautry** is associated with highr risk.

CONGENITAL FACTORS

- Accesory ostia
- Diverticula
- Partial stenosis
- Tuba tortuosity
- Aplasia , atresia , hypoplasia





Mnemonic - ECTOPICS

- **E** ▸ PREVIOUS ECTOPIC
- **C** ▸ CONGENITAL FACTORS
- **T** ▸ ASSISTED REPRODUCTIVE TECHNIQUES
- **O** ▸ O-
- **P** ▸ PID
- **I** ▸ IUCD
- **C** ▸ CIGARETTE SMOKING
- **S** ▸ SALPINGITIS ISTHMCA NODOSA ,PREVIOUS SURGERIES ON THE TUBE

NATURAL HISTORY OF TUBAL ECTOPIC

TUBAL ABORTION

Tubal rupture

- Ectopic attached to antimesenteric border trophoblast invades through the peritonel surface sever intaperitonel bleed.
- if attached caudally , erosion of the trophoblast can lead to a broad ligament haematoma
- Rupture is an emergency condition.

- Presents with intraabdominal bleed and shock.
- Symptoms –pale,cold clammy extremities
- O/E- pallor +,rapid thready pulse , hypotension.
- P/A- tenderness in RIF/LIF, abdomen distended, guarding+, rigidity+, cullens sign +
- blood can collect around the rupture site forming a **peritubal haematocele** or in the pouch of douglas forming **a pelvic haematocele**(detected by **culdocentesis)**

Site of tubal ectopic	Usual time of rupture
Isthmus	Early rupture at 6-8wks
Ampulla	Later that 6-8 wks
Interstitial region	Late rupture ,may be in the 2nd trimester.But the bleeding from this site is extensive.

- Tubal rupture/abortion can give rise to a pelvic haematoma

Abdominal pregnancy

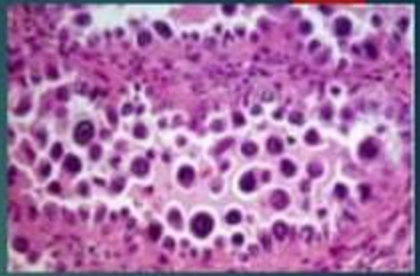
After tubal rupture , fetus may drop into the abdominal cavity

If that fetus is still alive

secondary abdominal pregnancy or

a secondary intraligamentous pregnancy

Changes in the uterus



- Uterus becomes slightly enlarged .Why?

Due to myohyperplasia and hypertrophy.

- Arias Stella phenomenon =hyperplasia of glandular cells with hyperchromatic nucei ,cytoplasmic vacuolations and loss of cell polarity

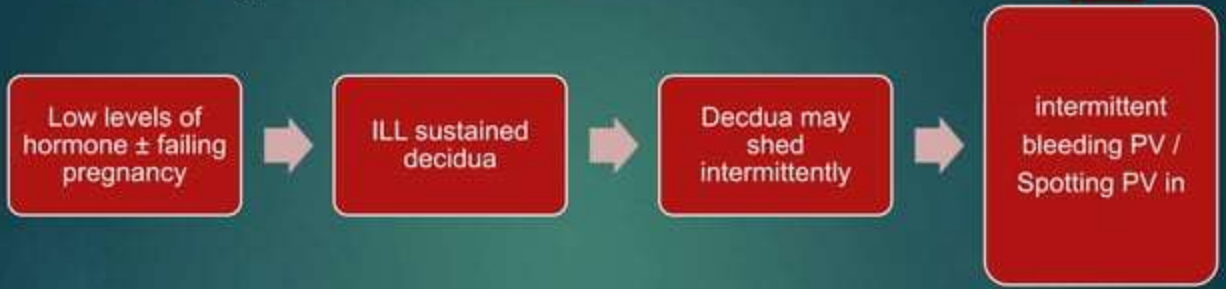
- Is non specific.

- Absence of chorionic villi in the endometrial curettings- MOST RELIABLE FINDNG
- Floatation test

Done to differentiate between endometrial curettage with chorionic villi and without chorionic villi .

Arias stella reaction + absence of chorionic villi in endometrial curettage = highly suggestive of ectopic pregnancy

- Stroma of the uterus shows decidualistaion with large polyhedral cells and hyperchromatc nuclei.



Decidual cast: decidua may be passed as a flat reddish brown piece of tissue called decidual cast.

Clinical features

- Case1:

A 28yr old women married for 2yrs presented with 8 wks amenorrhoea , acute abdominal pain followed by spotting PV and she was UPT positive .

- Case2:

A 25 yr old married lady presented with history of 10 wks amenorrhoea ,acute lower abdominal pain and fainting . On clinical examination , she has tachycardia , hypotension and pelvic tenderness.she was also UPT positive.

D/D for first trimester bleeding pv

- 1.Ectopic pregnancy
- 2.Abortions
- 3.Vesicular mole

- Classical triad of ectopic gestation =amenorrhea + irregular vaginal bleeding + abdominal pain .

- Presence of amenorrhoea is not essential for the diagnosis of ectopic pregnancy. WHY?

- Profuse bleeding is unlikely in an ectopic and is more in favour of an abortion.

- ***IRREGULAR OR ABNORMAL BLEEDING ASSOCIATED WITH ABDOMINAL PAIN IN A SEXUALLY ACTIVE WOMEN - WE SHOULD ALWAYS SUSPECT AN ECTOPIC PREGNANCY UNLESS PROVEN OTHERWISE .***

- ABDOMINAL PAIN
- SHOULDER PAIN –referred pain from irritation of diaphragm by intraperitoneal bleed
- FAINTING SPELLS

THANK YOU