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Ectopic Pregnancy “Extra uterine pregnancy”

By Dr. S Michael Awad

Ectopic pregnancy is a pregnancy that occurs, or implants outside the recognised endometrial cavity. The condition significantly contributes to maternal mortality all over the world, due to five very important factors:

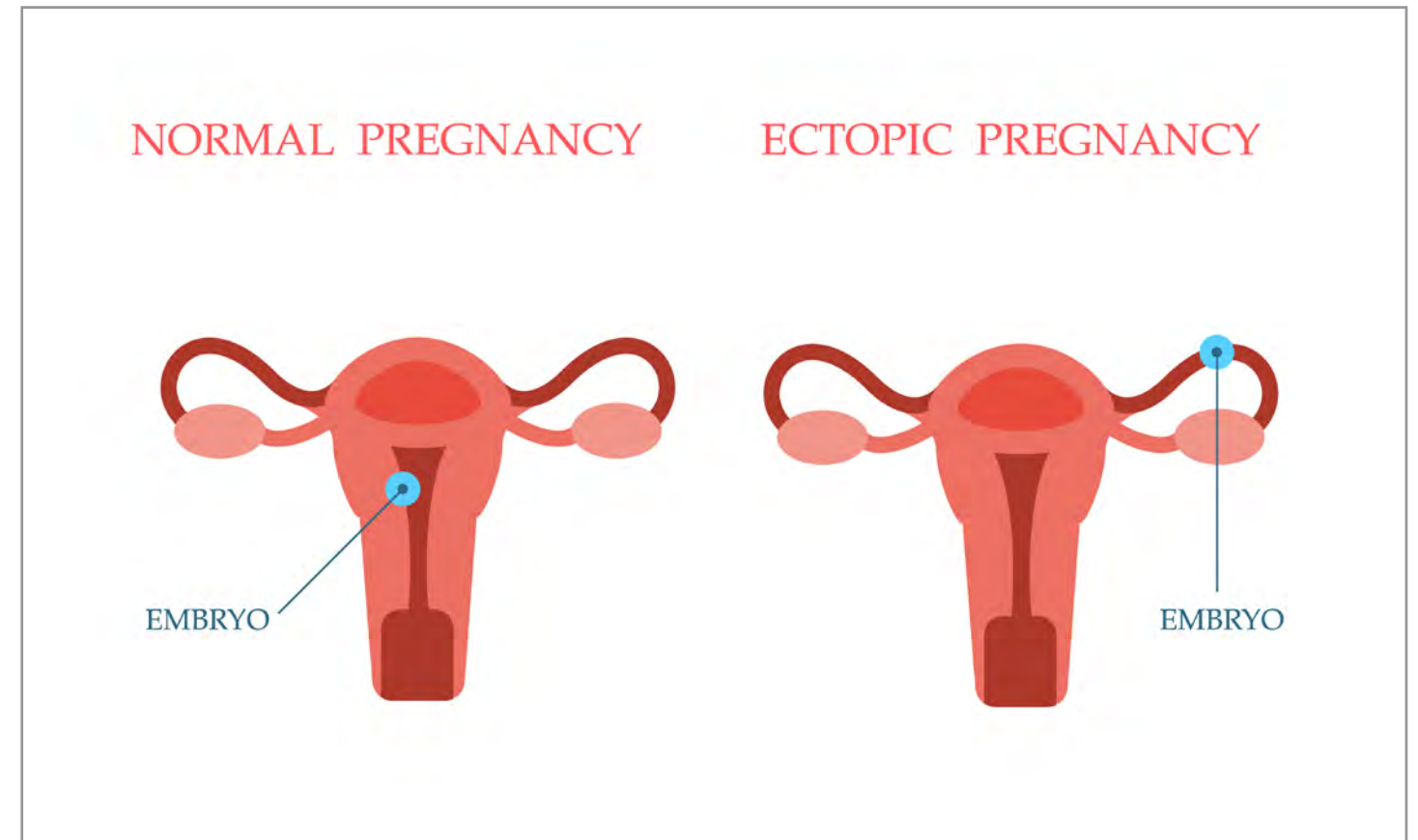
1. Lack of early detection and diagnosis.
2. Lack of early intervention, especially if the patient doesn't have quick access to safe surgery/surgeon.
3. The speed of progression of the case from being haemodynamically stable into very critically unstable patient, that require professional, fast and adequate intervention to deal with the emergency, including intensive monitoring, central line access, continuous blood pressure, pulse arterial oxygen monitoring, blood transfusion, operating room available at very short notice and personnel that carry out emergency laparoscopy/laparotomy.
4. The early symptoms can pass undetected.
5. Lack of suspicion of diagnosis or differential diagnosis of the condition, which makes early detection difficult.

By definition, an ectopic pregnancy (EP) is pregnancy implanted outside the endometrial cavity. That can occur in any part of the Fallo-

pian tube, on the surface of the ovary or inside the abdominal cavity. Fortunately, at just 6-16% of all pregnancies, it is not a very common condition. However it is becoming more common than it was 20-30 years ago, and if it is not treated early it can result in maternal death.

Approximately 95% of EP pregnancies occur in the Fallopian tube, 2.5% occur in the uterine cornua and 2.5% occur on the ovary or inside the abdominal cavity. Naturally, symptoms can vary based on the site of the EP. For instance, in cases of cornual EP, abdominal pain and rupture of the cornua occur much earlier than if the EP occurs in the ampullary portion of the tube, where pain is a late symptom and spontaneous abortion from the end of the tube can occur, resolving the condition.

There is a trend pattern emerging which links the rise of sexually transmitted diseases or infections (STD or STI) with EP pregnancies. In geographic areas where STD/STI is on the rise, EP pregnancies are also increasing. Likewise, EP pregnancies are lower in areas where STD/STI is low. More surgeries carried out on the Fallopian tubes will lead to more EP occurrence. That includes tubal ligation, which may not achieve complete occlusion to the tubal



lumen or cavity. Tubal reconstruction, adhesiolysis by any format, cuff salpingostomy and end-to-end reanastomosis can all contribute to increased incidence of EP.

As egg fertilisation and the formation of early embryo and zygote occur in the outer third of the Fallopian tube, any scars, twist, distortion or disruption to the ciliary action of the tubal endothelium, can be the etiology of EP, as the zygote can't proceed to its destination inside the endometrial cavity.

Also, an increase in tubal disease will lead to an increase in EP. Tubal disease is caused mainly by ascending infection, including STD/STI as mentioned before. Tubal disease may be microscopic and can't be detected on laparoscopy, saline hystero-graph or dye hysterosalpingogram, as the pathology is at the level of endothelial function. Macroscopic pathology can also oc-

cur as tubal obstruction and variety of hydrosalpinx affecting any part of the tube, usually the distal and mid portion of the tube.

One more factor in the etiology of EP. That is the increase in ART (Assisted Reproductive Technologies). As pregnancies due to ART is on the rise, so EP is. Most of these cases has microscopic and undetected tubal factor, which arrest the migration of the early embryo and stops it inside the tube.

With such potentially lethal condition, how can we diagnose it early? The holly triad is:

1. positive pregnancy test
 2. pain, usually lower quadrant or pelvic
 3. irregular and erratic vaginal bleeding.
- Our suspicions should be sharply increased for ectopic if the following triggers;