

ECTOPIC PREGNANCY
NEW TRENDS IN THE MANAGEMENT

THESIS

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AIM OF THIS WORK IS A REVIEW STUDY
OF THE NEW TRENDS IN THE MANAGEMENT
OF ECTOPIC PREGNANCY

Ectopic pregnancy is a major obstetrical problem. Its incidence is gradually rising nowadays due to the increased incidence of pelvic inflammatory diseases that follows the use intrauterine devices especially the medicated forms and also the increased operations of reconstruction of the fallopian tubes as a line of treatment of infertility. Since ectopic pregnancy is a very serious and even a fatal condition that escapes the notice of both the patient and the physician, the aim of this work is to discuss the new techniques that allow diagnosis of ectopic pregnancy as early as possible i.e before it ruptures and before complications happen.

Once diagnosis is verified trials should be done to avoid ablation of the tubes but their reconstruction with conservative surgical management in the light of advances in tuboplastic procedures by different techniques. These to minimize the patient morbidity and to give her a better

chance for further gestation as well as to avoid the recurrence of the condition. At the end of this discussion the laparoscope was mentioned as a tool for diagnosis and management of some cases of ectopic pregnancy.

DEFINITION

ECTOPIC PREGNANCY

INTRODUCTION

Definition:

Ectopic pregnancy means implantation of the fertilized ovum at any site other than the decidua of the uterus, this term is better than extrauterine pregnancy as ectopic may occur in the interstitial (cornual) part or cervix of uterus. The commonest type of ectopic is that which occur in the fallopian tube, and although the tube is concerned with the transportation of the fertilized ovum to the uterus but under certain conditions the egg may implant itself on the tubal wall (Novak et al., 1981).

Incidence:

Although it had been estimated that the incidence of ectopic is about one in every 750 viable births (Percival, 1979), and in other statistics it is 1/300 (Novak, 1981), actually its incidence is more frequent. The incidence of elctopic pregnancy is influenced by many factors including the patient-s race (more in black than in white women) and also the socio-economic status

(more in low social classes) Siegler, 1980. Panayotou et al., 1972 stated that a previous induced abortion increases the risk of a subsequent ectopic pregnancy 10 folds. Beral, 1975 noticed that the use of intrauterine devices was a major factor in absolute increase of ectopic pregnancy because of increased rate of pelvic inflammatory disease especially salpingitis, some subclinical and some clinical. Incorporation of progestagens into intrauterine devices seems to increase the incidence of ectopic over that in the unmedicated devices (Snowden, 1977), because these drugs fail to inhibit ovulation and they act by making the endometrium unsuitable for implantation.

The commonest age incidence is in the 3d decade of life (Fig. 1).

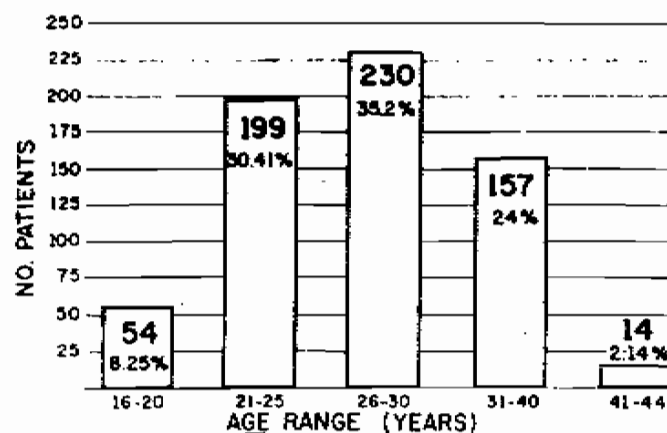


Fig.(1): Age range in patients with ectopic pregnancy (Breen, 1970).

As regard parity ectopic pregnancy is more common in multiparous women than in others (Fig. 2).

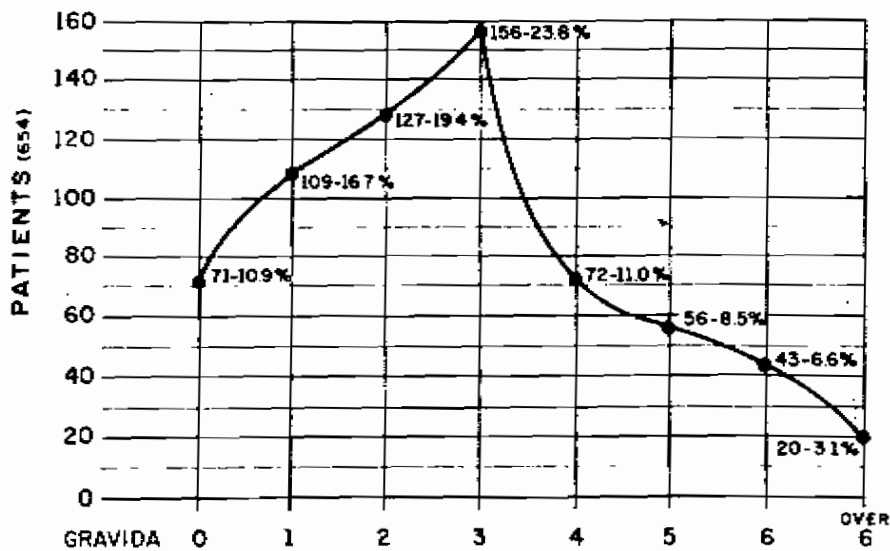


Fig.(2): Parity in patients with ectopic pregnancy (Breen, 1970).

The use of postcoital estrogens for contraception result in a tenfold increase of the expected occurrence of ectopic gestation (Morris and Van Wagenen, 1973). Wang and Gemzell, 1981 and Mc Bain et al., both found a 2 percent incidence of extra-uterine pregnancy in patients whose ovulation had been induced with human gonadotrophins and that hyperstimulation with human chorionic gonadotrophins by successive

injections could induce multiple ovulations and the possibility of ectopic pregnancies. Repeated ectopic may occur in the remaining tube in about 10 percent of cases, while intrauterine pregnancy is much more common and about 25 percent (Schiffer) and this of course follows unilateral salpingectomy. (1963).

Aetiology:

The main causes of ectopic pregnancies lie in 2 categories, first is failure of passage of the fertilized ovum through the tube, and the second is the inherent factor in the embryo.

Causes of failure of passage of the fertilized ovum through the fallopian tubes:

- 1- Salpingitis and pelvic adhesions that usually follow tuberculosis (Halbrecht, 1957).
- 2- Congenital abnormalities of the tubes described by Persaud, 1970 and these are infantile tubes with imperfect development of the cilia, excessively long tubes, spasm of the tube, muscular insufficiency and antiperistalsis, diverticulae and accessory tubes.
- 3- Endometriosis of the tubes (Greenhill and Freidman, 1974).

- 4- Some pelvic abnormalities as cornual myomata, adeno-myoma of the fallopian tube blocking the isthmus, operations of ventrosuspension of the uterus in which case the round ligaments have been shortened near the isthmus (Howkins and Bonurne, 1976).

Causes inherent in the embryo (embryogenic factors):

It is quite possible that embryogenic abnormalities may predispose to ectopic pregnancy since the classic study of Mall, 1908 and confirmed by Stratford, 1970, it has been known that; just as spontaneous abortion ectopic pregnancy may be malformed. Stratford found that 64 percent of 44 cases of ectopic pregnancies were malformed. Poland et al., 1976, studied the chromosomal pattern in 16 cases of ectopic gestations and found that 5 of these cases were grossly abnormal (Novak, 1981). Theoretically, a rapid development of the trophoblast might lead to early implantation in the tubal linings.

Now, the causes of recent increase in ectopic pregnancy, may be due to:

- Trials for reconstructive surgery of the tubes.
- More frequent salpingitis and pelvic inflammatory diseases that follow the use of intrauterine devices,

surgical interference to terminate unwanted pregnancies and the relative increase in frequency of genito-urinary and venereal inflammatory diseases.

- Increased promiscuity of young generation, increased incidence of venereal diseases and residual tubal pathology resulting in either the discreminate or indiscriminent use of antibiotics in the therapy of pelvic inflammatory disease (Breen 1970).
- Postcoital contraception; stilboestrol administered after intercourse to prevent unwanted pregnancy has come to be known as the "Morning after pill". Stilboesterol given 25 mg twice daily for the next 5 days give contraceptive protection for 3 days (Kuchara, 1971). The mechanism of action is not fully understood, but very likely implantation is interfered with in some way. Similar results of postcoital contraception obtained by Crist (1974), by ingesting 10 mg of conjugated equine estrogens (Premarin) 3 times a day for 5 days. Other estrogens in comparable doses will prove to be effective (Williams, 1980). From the above it was noticed that there is increased rate of elctopic pregnancy with postcoital contraception.

Anatomy of the Fallopian tubes:

- the fallopian tubes lie between the ovaries and the uterus, they are long convoluted diverticulae of Mullerian ducts.
- they extend from the uterine cornu and lie in the upper free edge of the broad ligaments.
- Each is about 6-15 cm in length with average 11cm.
- The tubes are suspended by mesosalpinx, this is related to the origin of the round ligament anteriorly and inferiorly and to the suspensory ligament of the ovary posteriorly and superiorly. Laterally it is continued as the infundibulopelvic ligament.
- The distal (abdominal) ostium is surrounded by fimbria and one is longer than the others and is attached to the lower pole of the ovary this is called fimbria ovarica, (Eddy, 1982).

The oviduct is usually divided into 4 parts;

- 1- The intramural or interstitial part: present inside the uterine wall, it is 1-3.5cm in length and 1/2-1mm in diameter, this part takes either a straight or convoluted course. No anatomical sphincter has been found to exist at this uterotubal junction in the human.