INTRICACIES IN THE DIAGNOSIS OF EXTRA-UTERINE GESTATION WITH A CLINICAL EVALUATION OF SYMPTOMS AND SIGNS.

IN 50 CASES AT THE J. J. GROUP OF HOSPITALS, BOMBAY

by

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Looking back through 32 years of experience, I feel that an obstetrician and gynaecologist goes through three periods in life with regards to his ability in diagnosing an ectopic gestation. In his early years, he feels he hasn't had sufficient experience and hence has missed the correct diagnosis. After 15 or 20 years, he feels he has had sufficient experience, when he is deceived by an ectopic, and after 20 years, he feels completely defeated, when with all his experience, he cannot still be absolutely sure of the diagnosis of an ectopic.

Clinically the gynaecologist is confronted with this problem as 3 different types: (1) Acute ectopic, (2) sub-acute ectopic and (3) advanced extra-uterine gestation.

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Very few cases are ever diagnosed before rupture. I am in complete disagreement with Falk, who asserts that there is no pain with tubal gestation until bleeding from the tube occurs. Patients who are intelligent enough to differentiate the pain do complain of abdominal uneasiness and slight pain at the site of tubal gestation. I had a stout patient who had 2 previous abdominal sections for other reasons, and this time complained of 5 weeks' amenorrhoea, pain in the right iliac fossa, and marked tenderness in the right vaginal fornix and right cornu of uterus. The A-Z test was positive. There was no vaginal bleeding. She was opened up. There was no blood at all in the peritoneal cavity but the right tube had just a nodular prominence—1" x 1" in its isthmical portion. A linear incision was made on the prominence and an early ovum with shaggy chorionic villi, was removed (Fig. 1) and right salpingectomy was done.

The poor hospital class of patients do not appreciate this mild abdominal uneasiness due to contractions and

distension of the tube and even if appreciated they can be mistaken for gas in the abdomen and chronic dyspepsia due to worm infestation and amoebiasis. In our present series we have no case of unruptured tubal gestation.

The diagnosis of a clinical case of acute ectopic—can usually be made over the telephone—with the important triad of symptoms—amenorrhoea, severe pain, sometimes of a bursting type, and collapse. It is important to keep in mind that there may be no amenorrhoea, if the gestation is at the interstitial end of the tube, which ruptures early, even before a period is missed. These cases have to be distinguished from a ruptured appendix, or a perforation of a viscus, e.g. peptic ulcer or intestinal perforation. In our series of 50 cases we collected 9 cases from the surgical side, opened up as appendicitis or ruptured appendix and 3 cases diagnosed as intestinal perforation. The increasing pallor of the patient with a rising pulse and falling blood pressure clinches the diagnosis. Pulsation in the fornix is very variable. Unlike perforation of a viscus and peritonitis there is no marked rigidity of the lower abdomen in ectopic but only a mild guarding. There may or may not be vaginal bleeding. We had one case of severe haemorrhage from a corpus luteum diagnosed as acute ectopic. Acute haemorrhagic pancreatitis is fortunately rare, but it also cannot be diagnosed clinically from an acute ectopic. The resemblance to a twisted ovarian cyst, with or without pregnancy, or a twisted pedunculated fibroid with pregnancy, is superficial. With a careful bimanual vaginal examination one is able to detect a well defined and tender mass in the latter, while with an acute ectopic, there is only very marked tenderness in either fornix and no palpable mass.

The subacute ectopic poses the greatest challenge to correct diagnosis. The cardinal symptoms are: (1) amenorrhoea, (2) vague abdominal pain and (3) vaginal bleeding.

Amenorrhoea:

Many of our patients hardly can remember a short amenorrhoea of 5-6 weeks, and hence we had 14 cases (28%) without history of amenorrhoea and 8 cases with doubtful amenorrhoea collected from the surgical wards where amenorrhoea was not mentioned in history and one case of amenorrhoea of only 2 days. The pain is a constant ache with acute exacerbations. Pressure on the abdominal wall worsens this pain while it relieves the pain in intestinal colic.

Vaginal bleeding:

The vaginal bleeding is more often than not mistaken for irregular menstruation, especially since it is scanty and brownish. Quite often the bleeding is very profuse and can then be easily mistaken for an intra-uterine abortion. We had one case admitted as tubo-ovarian mass following an abortion when it was really an ectopic sac. The bleeding however is always painful and never painless

and hence metropathia haemorrhagica or functional bleeding should never be considered in the differential diagnosis.

Expulsion of a decidual cast is late, after 2 or 3 attacks of pain and bleeding, but bits of decidua, if looked for microscopically, without chorionic tissue can be found in 30% of cases. Fainting attacks and giddiness were present only in 2 of our cases. Rectal tenesmus should make one think of a pelvic haematocele and not attribute it to colitis and chronic dysentery. Dysuria and retention of urine may be present when the ectopic sac rarely lies anterior to the bladder.

A long period of sterility is said to be usually associated with ectopic gestation. In our 50 cases, 15, i.e. 30%, had a sterility of more than 4 years, one patient was married only 6 months ago and the ectopic was the first conception, one had implantation of tubes performed previously and one gave history of some operation for sterility.

The sub-acute ectopic is mostly wrongly diagnosed as salpingo-oophoritis or pyosalpinx. If the ectopic sac be of long standing and infected, then the diagnosis becomes almost impossible. The ectopic mass is said to be very tender, ill-defined, and of varied consistency; so can a salpingitic sac be. In an ectopic, if the cervix is soft and blue, and the uterus slightly enlarged, it may be of help, but with a retroverted fixed uterus and a tubo-ovarian mass, it is very difficult to guage the correct size of uterus. The uterus may appear to be slightly enlarged, because the tubo-ovarian mass adheres to the uterus and the cervix may be soft with congestion, and irregular and profuse menstruation. A differential leucocytic count in an infected ectopic is of no value. In both cases there may be temperature. The A-Z test if positive may help but if negative is valueless. Colpo-puncture will help only if blood is fluid and collected in the pouch of Douglas. In cases of intra-ligamentary gestation, or where rarely the sac is anterior to the uterus it may be wrongly negative. If pus is aspirated, it does not rule out an infected ectopic, though frank pus would go in favour of pyosalpinx. Colpo-puncture was performed only in 6 of our cases. In 4 it was positive and helped to clinch the doubtful diagnosis. In one it drew out pus and the case was one of pyosalpinx. In one it was a false negative; the case was an ectopic with a localized peritubal haematocele and hardly any blood in pouch of Douglas. Colpo-puncture is said to infect the sac, and if positive a laparotomy should follow as soon as possible.

Very often we have to try the therapeutic test. If with antibiotics and rest, the pain subsides and mass gets smaller; the diagnosis is in favour of a tubo-ovarian inflammatory mass but with an ectopic mass there is not much difference. In fact, under observation, the mass may get bigger and the patient paler, suggesting strongly further haemorrhage into an ectopic sac. We encountered one such case.

Hence salpingitis, salpingo-oophoritis or a tubo-ovarian mass is

the most common condition that is sometimes impossible to differentiate from a sub-acute ectopic. With all our experience, to open and see, seems to be the only method of diagnosis. Seven of our cases were opened up with a wrong diagnosis and 6 with a doubtful diagnosis of ectopic i.e. in 26% of cases, the diagnosis was ectopic and proved on laparotomy to be salpingo-oophoritis, tubo-ovarian mass or pyosalpinx.

An incarcerated ovarian cyst or a degenerating fibroid in posterior wall of uterus with pregnancy are very well defined and not easily mistaken for a pelvic haematocele. In 2 of our cases, the ectopic was, however, wrongly diagnosed, one as a fibroid and the other as an ovarian cyst. In 2 others the diagnosis was doubtful, more in favour of a fibroid or an ovarian cyst and both were ectopics.

An examination under anaesthesia is a *must* in diagnosing sub-acute gestation.

A pelvic haematocele can be mistaken for an incarcerated gravid uterus tending to abort. But, a careful examination under anaesthesia will show the cervix to be pushed downwards and forwards under the symphysis pubis and a little friction of the mass with the fingers in the posterior fornix will make the uterus contract (Palmer's sign) and its continuity can then be easily traced with the cervix.

Uterine pregnancy with lateral flexion of uterus is very difficult to be diagnosed from a subacute ectopic mass in the postero-lateral fornix, especially if there is vaginal bleeding due to threatened abortion. Here even the A-Z is positive. I had a case where the abdomen was opened and as soon as the uterus was anteverted the lateriflexion of the uterus assumed its pyramidal shape and the mass in the postero-lateral fornix disappeared. Fortunately, this pregnancy went to term.

Obstinate constipation often causes mistakes. Two cases were opened in the surgical wards as cases of sub-acute intestinal obstruction and turned out to be ectopic gestation.

Tuberculosis in our country is often associated with sterility. Because of history of treatment in the past for tuberculosis of lungs, abdomen and spine, 3 of our cases were wrongly diagnosed as ileo-caecal tuberculosis and tubercular peritonitis and found on operation to be cases of ectopic gestation.

Advanced ectopic gestation is rarely met with. In 50 cases we had only one, with 6 months' amenorrhoea. History of an earlier attack of acute pain, vaginal bleeding and attacks of giddiness is significant of the primary rupture. The hard non-pregnant cervix should attract attention. In the last trimester the foetus is easily palpable per abdomen and often lies in abnormal positions. But in the second trimester the ectopic sac can be mistaken for an ovarian cyst, fibroid and pregnancy in a horn of a double uterus. The separate uterus can be identified by the passage of a sound or injection of lipiodol and an x-ray will show the foetus in abnormal position in the abdomen in marked flexion or extension. In our case it was mistaken for an ovarian

cyst, as the foetus was small and lay posterior. The sac with placenta could be easily removed.

Conclusion

Fifty cases is much too small a number from which to draw any conclusions but it suffices to show that the correct diagnosis of an ectopic gestation is quite often almost impossible.

We had 2 very interesting cases opened up for ectopic: (1) Intrauterine pregnancy with threatened abortion and right salpingo-oophoritis. (2) Normal pregnancy with no pathology in the abdomen.

It is often wise when in doubt just to wait and watch, rather than rush to a laparotomy.

In our series of 50 cases, collected from both the Gynaecological and Surgical departments of the J. J. Group of Hospitals, the diagnosis was wrong in 22, doubtful in 20 and correct pre-operatively only in 8.

This, I am sure, is not because we lack in clinical acumen but merely because our patients do not give us proper history, the diagnosis of an ectopic is very intricate as it can imitate so many conditions so that even years of experience do not help often to make one very sure.