Chronic Ectopic Pregnancy – A Challenge in Diagnosis

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Introduction:

TO MOST DOCTORS the mention of an ectopic pregnancy conjures up visions of a very pale and severely shocked patient in pain being wheeled into the casualty. This classical and acute picture of a ruptured ectopic pregnancy, presenting a straightforward diagnosis is however not common, though it receives the most attention. The majority of ectopics present in a far less dramatic fashion. An analysis of the cases of ectopic pregnancy seen at this hospital during 1972 showed that in fact 66% presented as chronic cases. Further the symptoms may be so varied and present in such a quiet way that the diagnosis is often missed. It becomes therefore a real challenge for the doctor to make a correct diagnosis.

In this paper a number of cases of chronic ectopic pregnancy are presented to show the varied symptomatology.

Case Reports:

Case 1: C.A.N. female Chinese 41 years presented with vomiting and mucous diarrhoea for three days and was admitted as a case of gastroenteritis. She had no history of amenorrhoea but two days previously when her period was due she had started to bleed, and this was assumed to be a normal period. On examination she was not in shock but a little pale. There was some tenderness over the abdomen though very slight and no rebound tenderness was present. On vaginal examination the typical "prune juice" bleeding was seen and tenderness was present in the left lateral fornix. At laparotomy a leaking left tubal pregnancy with a small haematocele in the Pouch of Doughlas was seen. The gastrointestinal symptoms were due to irritation of the rectum by the haematocele.

Case 2: A.B.K. female Malay 32 years presented with severe abdominal pain and retention of urine for one day. Three days prior to this she had been seen at the casulty department of another hospital with retention of urine and was catheterised and sent home. She gave a definite history of fainting when she had the abdominal pain. No amenorrhoea or vaginal bleeding was present. On examination she was not in shock and her general condition was satisfactory. The bladder was grossly distended and 800 ml of urine was obtained by catheter. A tender soft mass was present in the pelvis and the pregnancy test was negative. At laparotomy a large pelvic haematocele was seen with a leaking tubal pregnancy. The cause of the retention of urine was due to pressure from the haematocele on the urethra.

Case 3: Y.H.M. 30 years Chinese female was admitted as a twisted ovarian cyst. She gave a history of bleeding per vaginum for 3 weeks since the start of her period, and left sided colicky abdominal pain. On specific questioning there was a history of fainting. On examination she was in very good condition, with mild tenderness on the left side of the abdomen. The vaginal bleeding was however typical – prune juice in colour. On pelvic examination a small tender mass was present in the left adnexa. Pregnancy test was negative. At laparotomy a partially extruded left tubal pregnancy with an intact sac was seen.

Case 4: Z.M.L. 30 years Malay female was admitted with abdominal pain for three weeks. She had missed her periods for two months and this was followed by bleeding and pain. She was treated as a septic abortion at another hospital and following a D & C the bleeding had stopped but the pain had persisted. Direct questioning elicited the fact that she had felt like fainting on a number of occasions. On examination her condition was satisfactory and the abdomen was soft. A firm mass about the size of a 14 week pregnancy was present and on vaginal examination this mass was tender. At operation an old ruptured ectopic pregnancy with a haematocele surrounded by dense adhesions was found.

Case 5: C.H.F. 36 years Chinese female presented with severe right hypocondrial pain radiating to the back. She had fainted initially but subsequently had no further attacks. She was admitted with an initial diagnosis of biliary colic. Urine examination showed the presence of bilirubin. Pregnancy test was negative. There was no vaginal bleeding and the period was delayed by six days. On examination her condition was good and abdominal and pelvic examination elicited hardly any tenderness from the patient. However during pelvic examination the patient said that she felt like fainting. In view of the characteristic history a laparotomy was done and a leaking right tubal pregnancy was found. The tracking of blood under the right diaphragm explains the cause of the patient's symptoms.

Discussion:

As can be seen from the above case histories, the symptoms of chronic ectopic pregnancy may be so varied that confusion occurs with a variety of other abdominal conditions e.g. gastroenteritis (Case 1), retention of urine (Case 2), ovarian cyst (Case 3), septic abortion (Case 4), and biliary colic (Case 5). Diagnosis can therefore be elusive.

In considering the symptoms, the only constant and by far the most important one is *abdominal pain.* This pain is almost always associated with *fainting.* In fact fainting is the second most important symptom of ectopic pregnancy. Any female patient in the reproductive age group who presents with a combination of these two symptoms should be strongly suspected of having an ectopic pregnancy irrespective of any other contradictory symptoms or signs.

The other symptoms namely amenorrhoea and vaginal bleeding are so variable and inconstant, that no certain reliance should be placed on them. In many cases amenorrhoea and vaginal bleeding are absent. However if vaginal bleeding does occur, the colour is so characterestic – "prune juice" like – that one can even make, on occasions, a spot diagnosis of ectopic pregnancy. Another important feature of this bleeding is that it is *persistent* and continues without stopping even if a D & C is done.

Physical Signs:

The only reliable physical sign is pelvic tenderness on vaginal examination. However, physical signs can be most inconspicuous even in a patient who has a fair quantity of blood in the peritoneal cavity. The author has been impressed by the fact that particularly in young healthy patients, abdominal tenderness, rebound tenderness, and tenderness on vaginal examination can be completely absent even when subsequently at laparotomy it was shown that there was a good amount of blood in the pelvic cavity. This is particularly noticeable in Chinese patients. Negative physical signs should not therefore be allowed to overrule the characterestic symptoms. In this one agrees entirely with Jeffcoate's (1967) contention that 'diagnosis of an ectopic pregnancy rests almost entirely on the history and physical signs are of secondary importance'. The more thoroughly one goes into the history, keeping in mind the ever possibility of an ectopic in any woman of child bearing age, the less one is likely to miss the diagnosis.

Special Investigations:

Pregnancy Test: The results of pregnancy testing are so variable in ectopic pregnancy, that as an aid to diagnosis it is practically worthless. The result of the test seems to depend very little on the state of the ectopic pregnancy and even in an unruptured case quite often the test is negative.

Examination under Anaesthesia: Since on physical examination the all important sign is pelvic tenderness and examination under anaesthesia completely obscures it, one can only condemn this procedure as useless. Further it may be positively dangerous as bleeding may be provoked as a result of the examination.

Posterior Colpotomy: Although this procedure is very popular in certain countries, it is unreliable. In any case of pelvic congestion e.g. infection, blood may be drawn and conversely even in the presence of a clotted haematocele one may get negative findings.

From the above it can be seen that the less one depends on the accessory aids, the better it is, in arriving at a correct diagnosis.

Aetiology:

Although most text books emphasise the importance of tubal disease and blockage as being the chief cause of ectopic tubal pregnancy, one is impressed by the completely normal looking tubes of many cases of ectopic pregnancy at operation. Although tubal disease is certainly a factor, it has perhaps been over emphasised.

A condition which has received little attention is transmigration of the ovum. An ovum discharged from one ovary may become fertilised in the peritoneal cavity and migrate across the pelvis to enter the other tube on the opposite side. By this time the ovum is overdeveloped and has acquired a trophoblastic shell which encourages it to implant in the tube, and so a tubal pregnancy results. Transmigration can be presumed to be the cause if the corpus luteum is in the ovary on the opposite side to that of the tubal pregnancy. To test this hypothesis the corpus luteum was specifically looked for during laparotomy. In 24 cases so observed, the results were as follows:–

Corpus luteum on the same side as the tubal pregnancy – 10

Corpus luteum on the opposite side to the tubal pregnancy – 14(58%)

In all these cases there was no evidence of any pelvic infection and the tubes appeared perfectly normal. Therefore in a significant proportion of ectopic pregnancy – 58% in the above series – the cause is most likely due to transmigration of the ovum and not to any defect or blockage of the tube.

Conclusion:

Chronic ectopic pregnancy, presenting as it does a very quiet and varied clinical picture, can be most difficult to diagnose. Diagnosis is aided by paying the most careful attention to the history. Physical signs are of secondary importance only. The so-called special investigations are more often a hindrance in arriving at a correct diagnosis. Transmigration of the ovum seems to be a significant factor in the causation of an ectopic pregnancy.

Reference

Jeffcoate Y.N.A. (1967). Principles of Gynaecology. 3rd Edition. Butterworths. London.