GYNAECOLOGICAL AND OBSTETRICAL CAUSES OF ACUTE ABDOMINAL OR PELVIC PAIN

J. P. THERON, M.B., CH.B. (CAPE TOWN), DIP. O. & G. (RAND), *Bloemfontein*

The object of my contribution will be to enumerate only the commoner gynaecological and obstetrical conditions which may confuse the general practitioner in the diagnosis of a case presenting with abdominal or pelvic pain. No attempt will be made to discuss each condition fully. Mention will only be made of certain aspects which may be helpful in arriving at the correct diagnosis.

1. ECTOPIC PREGNANCY

These patients present clinically either as acute, or as subacute and chronic cases.

Acute Cases

It must be remembered that only about one-third of ectopic pregnancies will present themselves as acute surgical emergencies. In this group we include 3 clinical types:

(*a*) *Ruptured Ectopic Pregnancy*

This is the classical case we were impressed with at medical school, which is associated with a sudden onset of acute lower abdominal pain, collapse and shock. The clinical picture is that of severe internal haemorrhage. The pain rapidly involves the entire abdomen and palpation reveals the classical signs of distension, marked rebound tenderness, and shifting dullness in the flanks.

(*b*) *Leaking Tube*

Here the picture is less dramatic in onset, but still acute because of the active intraperitoneal bleeding, which may have been going on for periods of hours or even a day or two. The patient experiences several attacks of acute pain of a cramp-like nature, with a persistent dull ache between the acute episodes. The onset may simulate the more acute case but soon settle into the above picture. There may be vomiting and also scapular pain to confuse the issue. The scapular pain is due to irritation of the diaphragm by the blood in the peritoneal cavity. The patient also complains of fainting and weakness.

Examination of the abdomen reveals distension, rebound tenderness and shifting dullness. The tenderness is marked. On vaginal examination one may find an indefinite swelling in one or other fornix, but the pathognomonic sign is the severe pain caused by flipping the cervix with the examining finger.

Points to remember, in differentiating an acute ectopic from an acute pelvic infection, are as follows:

(i) In an ectopic the temperature is usually not raised.

(ii) There usually is no rigidity of the abdominal muscles in an ectopic. This is a very important sign.

(iii) The tenderness caused by movement of the cervix is much more acute in an ectopic. These patients almost climb out of the bed when their cervices are touched.

(*c*) *Unruptured Pregnant Tube*

This is mentioned for the sake of completeness, but as the condition is usually discovered accidentally, it will not be discussed. Although not an acute abdomen symptomatically, it should be operated on as an emergency.

Subacute and Chronic Cases

The subacute and chronic cases comprise more than one-half of all cases of ectopic pregnancies encountered. These patients do not present with acute abdomen, but will come to your rooms complaining of a dull ache or dragging pain in one or other iliac fossa or a continuous cramp-like lower abdominal pain. Often they have rectal tenesmus or difficulty with micturition, including retention of urine. The menstrual history usually includes a period of amenorrhoea, followed by continuous vaginal bleeding up to 3 weeks or longer. The history of the passing of a decidual cast is often mistaken for the aborting of products of conception.

There is an elevation of pulse and temperature, and slight pallor of the mucous membranes. Abdominal examination may show an indefinite mass arising out of the pelvis. This is due to matted omentum and bowel covering the pelvic haematocele. Bimanual examination reveals a tender, doughy swelling in one or other fornix, or in the pouch of Douglas. This mass is characteristically irregular in consistency, being hard in some and softer in other areas.

Particularly in the Bantu, it is often extremely difficult to differentiate such cases of tubal mole, with or without the formation of pelvic haematocele, from chronic pelvic inflammatory processes. When in doubt, take the case history again, paying particular attention to the menstrual history. A lowered haemoglobin concentration of the blood will point to a pelvic haematocele. Lastly, never forget the value of an examination under anaesthesia and the ease with which a colpotomy puncture can be performed. The blood aspirated from the peritoneal cavity or haematocele in such a case, is typical in appearance. Firstly, it is haemolysed blood and hence will not clot if left in a tube. Secondly, it contains numerous minute clots, as can be readily seen if squirted onto a clean piece of gauze. Blood aspirated from a vessel will not exhibit these characteristics.

OTHER CONDITIONS

2. *Acute Salpingitis and Rupture or Leakage of a Pyosalpinx*

Here again the taking of a proper case history will help immensely in arriving at the correct diagnosis. An acute attack of salpingitis nearly always follows within a few days after the menstrual period. The invading organisms are usually held up at the cervical barrier until menstruation

occurs, when they ascend by continuity of tissue to the fallopian tubes.

A vaginal discharge and bladder symptoms of dysuria—usually frequency and urgency of micturition—must accompany the condition. The patient has rigors and may vomit. The temperature varies from 101 to 103°F. The abdomen is distended, but now rigidity of the abdominal muscles is characteristic. An abdominal swelling arising out of the pelvis may be due to a hydro- or pyosalpinx. Vaginal examination may reveal a retort-shaped adnexal mass. Movement of the cervix, although tender, is not so excruciating as in the ectopic.

When a rupture or leakage of a pyosalpinx happens, there is a sudden deterioration in the condition of the patient, with the signs and symptoms of generalized peritonitis. There will be a sudden exacerbation in the abdominal pain and, on examination, the abdomen will be rigid and distended and at a later stage ileus may be present.

3. *Complications of Ovarian Cyst or Tumour*

The only time that an ovarian cyst or tumour causes acute abdominal symptoms is when it becomes complicated by torsion or rupture or a sudden haemorrhage takes place into it. It is well to remember that during pregnancy even the smaller cysts may undergo axial rotation, and the size of the cyst undergoing torsion has no bearing on the severity of the symptoms experienced. There is a sudden onset of acute lower abdominal pain of a cramp-like nature, and the other symptoms and signs of peritoneal irritation quickly follow. Characteristically, there is vomiting. The diagnosis is facilitated by not neglecting to do a vaginal or at least a rectal examination. A tumour or cyst can usually be found. A sudden increase in the known size of a tumour or cyst will indicate a haemorrhage into it, often as a result of torsion.

4. *Threatened or Septic Abortion*

These conditions should be easy to diagnose, but often a threatened, and especially a septic, abortion may cause acute lower abdominal cramp-like pains of such severity that it may quite easily be confused with an ectopic pregnancy or other lower abdominal emergencies. The patient who has a septic abortion is unlikely to mention to the doctor that she may have been pregnant. In fact, she will probably give a fictitious menstrual history and strongly deny the procurement of an abortion.

5. *Necrobiosis or Red Degeneration in Fibroids*

This complication nearly always occurs during pregnancy, postpartal or postabortal. It causes pain, which may occasionally be quite severe, and marked tenderness over the lower abdomen, and it is accompanied by pyrexia and leucocytosis. Particularly in the more advanced pregnant state, it may be difficult to distinguish from an extra-uterine cause. The condition usually subsides within a few days to a week, but it often is recurrent. No active treatment is required and to operate is extremely unwise and foolish.

Under this heading we can also include the pedunculated fibroid, which in rare cases undergoes torsion and causes acute symptoms.

6. *Ovulatory Pain* (*Mittelschmertz*)

In spite of the fact that this condition has been known to medical science for a hundred years, many an appendix has been removed and will probably still be removed in future, because practitioners do not take an adequate history. In the female this should always include the menstrual history.

Ovulatory pain occurs from time to time in approximately 15 - 40% of women. The pain is acute and may be severe, but seldom lasts longer than 12 - 24 hours. It is usually situated in the hypogastrium or one or other iliac fossa. Very often the pain occurs in the right iliac fossa, when the patient will be fortunate indeed if she manages to bypass the operating theatre. The time of onset is always on, or about, the 14th day before the onset of the next menstrual period. Only when a woman menstruates regularly every 28 days, will it occur in mid-cycle.

Two causes of the pain have been suggested. One is irritation of the blood and liquor folliculi on the peritoneum, when the pain will follow ovulation. The other theory is that the pain is caused by the increasing tension in the ovary as the follicle ripens. The pain would then occur before ovulation takes place. This may be why ovulatory pain seems to be commoner in sclerocystic ovaries, or where there is pelvic congestion.

CONCLUSION

This concludes the brief survey of the commoner gynaecological and obstetrical conditions which may confuse the issue in the diagnosis of the acute abdomen. Physical findings are seldom missed, but are often misinterpreted because not enough time is devoted to the interrogation of the patient and the sorting out of the episodes of the illness into their proper chronological order.