

Misdiagnosis Of Pelvic Mass With Intrauterine Contraceptive Device

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Citation

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Abstract

This article focuses on the evaluation and management of pregnant women who present with an adnexal mass in the setting of acute pelvic pain and an intrauterine contraceptive device in situ. Clinical diagnosis in pregnancy is a challenge because the differential diagnosis for an adnexal mass that presents with pelvic pain is broad and includes pregnancy-related and unrelated causes. The clinical presentation and natural history of abdominal and pelvic disease may be altered in pregnancy. The risk of an ectopic pregnancy in a woman while using Intrauterine contraceptive device is about 15%–20 %. Ultrasound scan is a helpful tool for evaluating a pregnant patient, however, pelvic inflammatory disease (PID) can be difficult to diagnose secondary to vague or confusing symptoms.

CASE REPORT

A 24 year old P₀₊₁ Caucasian woman presented to the accident and emergency department with mild lower abdominal pain, vaginal bleeding and a positive urine pregnancy test. The possibility of being pregnant was a surprise to her as she had a copper intrauterine coil inserted two years ago.

Her last menstrual period was four weeks ago and she had been having irregular vaginal bleeding for the last two weeks. She had recently travelled abroad had suffered from episodes of raised temperature and bouts of diarrhoea and constipation during the last three weeks.

On admission, she was conscious, oriented and afebrile with a stable blood pressure of 127/85mmHg but tachycardic, with a pulse of 112 beats /minutes. She had minimal tenderness in the right lower abdomen, without rigidity or guarding. She had minimal vaginal bleeding on the pad and she declined a pelvic examination because the examination performed at the general practitioner's (GP) surgery was extremely painful.

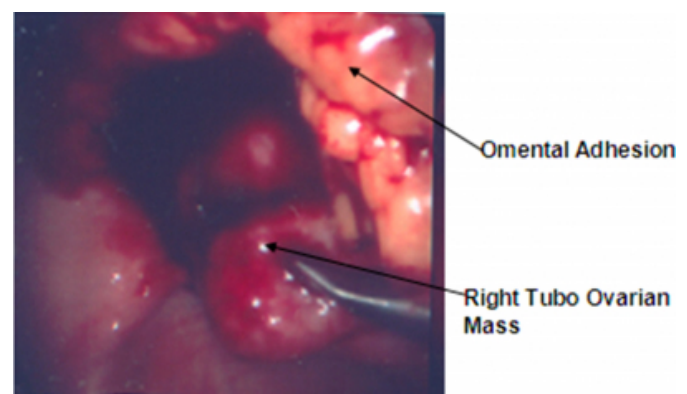
The urine was positive for blood, protein and leukocyte on dipstick. There was raised white cell count ($17.8 \times 10^9/l$) with neutrophilia ($13.5 \times 10^9/l$) on full blood count examination. The quantitative serum beta human chorionic gonadotropin (b-hCG) and serum progesterone was 246 IU/l and 5.5nmol/l respectively.

The trans vaginal pelvic ultrasound scan showed a normal size uterus and an intra uterine coil in situ with no evidence of intrauterine pregnancy. There was a complex right adnexal mass measuring 75X 40X25 mm, the left ovary was normal looking.

In view of the clinical suspicion and the ultrasound findings, the diagnosis of a right tubal pregnancy was made.

A laparoscopy was performed which revealed a right tubo-ovarian inflammatory mass with extensive adhesion to the small bowel and the appendix. There was no pus or pelvic collection.(Figure1) The left tube and ovary was normal. A laparotomy was performed due to the dense adhesions. A right salpino-oophorectomy and appendicectomy was performed.

Figure 1



The Intrauterine contraceptive device was removed and endometrial curettage was performed.

The patient made a rapid postoperative recovery and was discharged from the hospital in 72 hours. The repeat serum beta HCG after 72 hours was 15 iu/l and serum progesterone was 1.6nmol/l.

The histology confirmed an acute right tubo-ovarian abscess. There was no evidence of tubal pregnancy. The appendix showed chronic serosal inflammation without mucosal involvement, making it unlikely to be the primary source of the pelvic infection. The endometrial curetting showed evidence of endometritis, no chorionic villi was reported.

The patient was seen in the out patient clinic six weeks post-surgery and had made a good recovery.

DISCUSSION

The intrauterine devices are highly effective and cost-effective methods of contraception. However, the potential relationship between use of intrauterine devices and pelvic inflammatory disease is one of the most important issues in contraception today. For most intrauterine device users, the increased risk of pelvic inflammatory disease persists for only a few months after insertion.

This woman had an intrauterine contraceptive device which caused diagnostic difficulty. If the pregnancy test is positive in a woman known to have an intrauterine contraceptive device, the possibility of ectopic pregnancy should be considered even if there is no apparent change in an already irregular bleeding pattern.² The risk of ectopic pregnancy with copper intrauterine contraceptive devices has been shown to be 0.6 to 1.1% per year.¹

In this case, there was a high degree of suspicion for an ectopic pregnancy which was supported by the clinical presentation and the ultrasound findings, therefore the laparoscopy was performed to remove the ectopic pregnancy and avoid the potential rupture and a life threatening emergency situation.

The histology findings neither showed a tubal pregnancy nor confirmed an intrauterine pregnancy, because there were no chorionic villi in the endometrial curetting. The possible

cause could be a biochemical pregnancy or a recent complete miscarriage since the women had been bleeding for nearly fourteen days before seeking advice.

The unexpected findings of a tuboovarian mass and an absent extra uterine pregnancy warranted the same management pathway. Some might advocate that conservative management with analgesics and antibiotics could have been an alternative management plan. However in this case the working diagnosis was of an ectopic pregnancy. Therefore, the management in this case was operative in the first instance.

The widespread use of intrauterine contraceptive devices is limited by growing concerns about the link between pelvic infection and the use of intrauterine contraceptive devices.

Copper intrauterine contraceptive devices have a rate of pelvic inflammatory disease (PID) of 3.5 per 1000 women years¹. However investigations by the WHO showed that the increased risk is confined to the first 20 days after insertion.⁴ There is convincing evidence from a number of trials that the actual risk is small.

Even though there is a definite link between the use of intrauterine contraceptive devices and the development of PID it does not annihilate the benefits provided by the use of IUD for the majority of its users; and so the use of IUD should be maintained.³ There are ample evidence by the WHO Scientific Groups to support that copper and hormone – releasing IUDs are not only very effective but also very safe,⁵ method of contraception.

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