

# Ectopic pregnancy: symptoms, diagnosis and management

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Ectopic pregnancy is the third biggest killer of pregnant women in the UK. Misdiagnosis and delay in treatment remain common problems, which feature in the Department of Health's last two confidential inquiries into maternal death. This article outlines the symptoms and management of ectopic pregnancy as well as highlighting its psychological and physical effects.

Every year in the UK there are more than 20,000 emergency admissions to hospital for ectopic pregnancy. Ectopic pregnancy affects one in every 80-100 pregnancies (Royal College of Obstetricians and Gynaecologists (RCOG), 2002). It is a life-threatening condition and a gynaecological emergency. The incidence of ectopic pregnancy is rising due to the increased incidence of *Chlamydia trachomatis* (Tay et al, 2000). Most ectopic pregnancies implant in the fallopian tube and, as the pregnancy grows, cause bleeding and pain. If not treated in time, the tube can rupture and cause severe bleeding, which can lead to collapse and death.

## Importance of diagnosis

According to the Ectopic Pregnancy Trust two young women have died from misdiagnosed ectopic pregnancies in the last five months. Both women sought medical help before their collapse (one woman saw three different doctors). However, their symptoms were dismissed as being stomach upsets. Both women were found dead by their partners the day after seeking medical advice. Five women a year continue to die from ectopic pregnancy. These deaths are mainly caused by failure to suspect ectopic pregnancy and give appropriate care. This makes death from ectopic pregnancy the third biggest killer of pregnant women in the UK after thromboembolism and hypertensive disorders.

From a medico-legal standpoint, the alleged breach of duty in misdiagnosing ectopic pregnancy relates directly to the delay in diagnosis. Tay et al (2000) suggest that the diagnosis cannot be made in the community and that ectopic pregnancy must be excluded in a sexually active woman who has a positive pregnancy test, vaginal bleeding and abdominal pain.

With modern transvaginal scanning (TVS) an intrauterine pregnancy can be seen from four weeks onwards with absolute consistency (Jain et al, 1983). It has been

reported that a gestational sac is always seen with human chorionic gonadotrophin (HCG) levels of 300mIU/ml or more (Bernaschek et al, 1998; Stabile, 1996). However, despite this, the Ectopic Pregnancy Trust continues to hear from many women who have had the symptoms of ectopic pregnancy but were either not investigated or were given the wrong diagnosis. Worryingly, most women report that they had not been given any information about the signs of rupture or informed about the possibilities of an ectopic pregnancy.

Clements and Brennan (2000) concluded that if standard clinical guidelines produced by the RCOG (2002) were followed most cases of misdiagnosis and subsequent rupture would never arise.

## Risk factors

Stabile (1996) suggests the most important stage in early diagnosis is to identify those women who may be at risk. Common causes and risk factors include:

- Damage to the fallopian tube causing blockage or narrowing so the eggs cannot move into the uterus;
- Previous pelvic infection;
- Chlamydia. This infection is increasingly common in young women. It is crucial that school nurses, midwives, health visitors and teachers warn young women of the problems that untreated sexually transmitted infections (STIs) can cause to their health and future fertility;
- Previous appendicitis;
- Women with a history of infertility (Stabile, 1996);
- Caesarean section. With the rise in the Caesarean section rate in this country, this is an important factor to consider when informing women of their choices;
- Women aged 35 or older;
- Smoking.

However, in many instances the cause is not known.

## Symptoms

Stabile (1996) points out that mortality and morbidity are a direct result of the delay between presentation and treatment. It is essential that any woman of childbearing age be investigated appropriately if any symptoms of this condition are displayed. The most common are:

- Abdominal pain: this is usually one-sided, but not necessarily the side of the ectopic pregnancy;
- Bleeding that could be just spotting or abnormal bleeding. The blood is often darker than a normal period and can be described as 'watery or prune juice coloured';
- Shoulder tip pain, which can be caused by irritation to the diaphragm caused by internal bleeding, and is a classic sign of ruptured ectopic pregnancy;
- Bladder and bowel problems: pain when going to the



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**BOX 1. A CASE STUDY**

Liz (35) and her partner Mark (37) had been trying to conceive for four years when she discovered that she was five weeks pregnant. They were both overjoyed as previous investigations into infertility had shown that one of her fallopian tubes was scarred.

Two days later she started feeling mild colicky pain in her lower left abdomen. Liz was not too concerned as she had heard that you could get 'twinges' in early pregnancy. However, when she noticed that she was spotting small amounts of dark red blood she made an emergency appointment with her GP. Her GP sent Liz home to rest saying that it was quite common for women to lose a little blood in early pregnancy.

On Wednesday night Liz was curled up on the sofa, in acute pain, looking very pale. Her breathing was quite fast and she was complaining that her shoulder hurt. Liz started to feel very dizzy, nauseous and faint. Mark called an ambulance. Paramedics took her to hospital after cannulating her and giving oxygen. Her blood pressure was 80/50 and her pulse was 120. A laparotomy was performed and a haemoperitoneum of 1,000ml was drained. Her left fallopian tube had ruptured due to an ectopic pregnancy.

Liz's recovery was slow and the laparotomy pain made mobility difficult. Due to a wound infection Liz had deep scar tissue, which she felt was disfiguring. She could not bear to think about the baby she had lost.

A year later, Liz still has flashbacks, nightmares and a fear that she is going to die. She is being treated with antidepressants. Liz finds it hard to be with even her close friends as they all have children and she is feeling increasingly isolated and alone.

as they found that this has a high failure rate. Ankum (2000) proposes laparoscopy as the preferred option.

If diagnosis is made early before the tube ruptures, keyhole surgery or drug treatments such as methotrexate can be offered. This promotes a quicker recovery time and increases women's chances of future fertility. This is the view expressed in the RCOG guidelines (2002), which suggest a laparoscopic approach is highly preferable to undertaking a laparotomy because patients recover more quickly. It also results in less morbidity, a shorter hospital stay and greatly reduced costs.

**Patient education**

One of the roles of the nurse or midwife must be educating women and their partners in the signs and symptoms of ectopic pregnancy. As an advocate a nurse midwife or health visitor must 'act always in a manner as to promote and safeguard the interests of patients and clients' (UKCC, 1998).

Studies have found that many patients are dissatisfied with the information given by health care providers (Brown et al, 1999). In the situation where a woman has a suspected ectopic pregnancy it is essential that she and her partner be advised regarding the potential effect this may have on her health and fertility and be warned of the signs and symptoms of a ruptured ectopic pregnancy.

A leaflet is available free of charge from the Ectopic Pregnancy Trust. By providing information to patients nurses may well be able to prevent rupture and aid early diagnosis of ectopic pregnancy, thus not only minimising the need for major surgery but also potentially saving a woman's life.

**Psychological impact**

The loss of a baby and emergency surgery can have an enormous impact on a woman's psychological health and on her relationships. In addition, the surgery to treat ectopic pregnancy has an impact on the woman's fertility, usually decreasing it by 50 per cent or more. Many women who seek help from The Ectopic Pregnancy Trust are exhibiting symptoms of post-traumatic stress disorder, experiencing flashbacks, nightmares, hypervigilance and depression (Herman, 1997).

It is vital that midwives and nurses have an awareness of the emotional trauma of ectopic pregnancy when taking a history from a woman. Abbott (2002) suggests that an ectopic pregnancy is similar to having 'a termination without consent'. Sizoo (2002) speaks of feeling 'robbed of that special feeling pregnancy bestows on you... tricked, as if someone has played an almighty practical joke'.

**Recommendations**

Deaths from ectopic pregnancy should not still be occurring, therefore:

- Women should be informed of the signs and symptoms of ectopic pregnancy so that they can become empowered when seeking help;
- Health care professionals should have greater vigilance in the detection of ectopic pregnancy. ■

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toilet and a feeling of pressure in the bowels;

- Dizziness, pallor and nausea;
- Collapse.

The woman may not know she is pregnant or may think she is having an unusual period. In addition she may have been fitted with a coil.

Some women express a feeling that something is very wrong; this is often accompanied by a feeling of impending doom. Pregnancy testing may be positive but this is not always the case. Up to 75 per cent of women may present with subacute symptoms (Stabile, 1996).

**Management**

It is vital to diagnose an ectopic pregnancy early to prevent further damage to the tube and reduce the likelihood of morbidity as well as trying to preserve fertility.

If an ectopic pregnancy is suspected the woman should attend hospital. An ultrasound scan and a pregnancy test should be performed. If the test is positive and the scan shows an empty uterus, an ectopic pregnancy is likely and needs to be ruled out (Tay et al, 2000). If the woman is well this can be done by serial blood tests every 48 hours to check the level of the pregnancy hormone, beta-HCG. However, Tay et al (2000) recommend caution

**USEFUL CONTACTS**

The Ectopic Pregnancy Trust  
Telephone helpline 01895 238025  
Or visit: [www.ectopic.org.uk](http://www.ectopic.org.uk)

For an information leaflet send a large SAE to:  
The Ectopic Pregnancy Trust  
c/o Maternity Unit, Hillingdon Hospital  
Pied Heath Road, Uxbridge  
Middlesex UB8 3NN

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