Combined Pregnancy – a case report

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Summary

A case of combined intra- and extra-uterine pregnancy is reported. Awareness of this condition, a high index of suspicion, the proper interpretation of physical signs and ultrasound findings together with early resort to laparoscopy resulted in a favourable outcome.

Key words : combined pregnancy

Introduction

The simultaneous presence of an intra-uterine and extra-uterine pregnancy is called a heterotopic or combined pregnancy. It has been considered a rare occurrence and has often presented a diagnostic challenge. A preoperative diagnosis of this condition is only made in 10% of cases[1,2].

In recent years an increase in the incidence of this condition has been reported especially from the Western countries. This has been attributed to the increase in the use of ovulation induction agents as well as an increase in the incidence of pelvic inflammatory disease.

A combined pregnancy is potentially lethal. Early diagnosis is important. By presenting this case we hope to highlight this condition and bring about increased clinical awareness of its existence.

Case report.

The patient, a 30 year old Chinese primigravida first presented at the Casualty Department of the University Hospital, Kuala Lumpur on the 14th of July 1989 with the main complaint of lower abdominal pain for a few hours prior 2 weeks. Each episode lasted for 4 to 5 hours. Her last normal menstrual period had been 9 weeks prior to admission. A urinary pregnancy test had been positive a week earlier. Although she experienced dizziness, she did not have any fainting spells. There was no history of per vaginal bleeding.

On examination her general condition was satisfactory. Her pulse and blood pressure were stable. She was not pale. The abdomen was tender in the left iliac fossa with guarding and rebound tenderness present. No shifting dullness was detected. The bowel sounds were active.

A vaginal examination showed the cervix to be soft and the os closed. There was no vaginal bleeding. The uterine size was consistent with a 9 weeks gravid uterus and it was ante-verted. There was a left adnexal mass approximately 4 cm by 4 cm which was cystic and tender. On digitally moving the cervix towards the side of the mass, the patient experienced severe pain.

An ultrasound scan showed a viable intra-uterine pregnancy with a crown-rump length of 14 mm which was consistent with a 8 week pregnancy. A cystic mass, 3.6 cm by 3.6 cm was seen in the posterior cul-de-sac more towards the left. A collection of fluid was also seen in the posterior cul-de-sac.

A diagnosis of combined pregnancy was made. The differential diagnosis was a intra-uterine pregnancy with a ruptured corpus-luteal cyst.

A laparoscopy showed haemoperitoneum and a laparotomy was performed. At laparotomy, the uterus was enlarged and gravid. There was a left tubal pregnancy in the ampulla. It was intact and there was bleeding from the ostium. A left salpingectomy was done.

Her post-operative recovery was uneventful and a repeat ultrasound scan on the third post-operative day showed that the intra-uterine pregnancy was viable. Histopathology confirmed the presence of a left tubal pregnancy.

Up to the time of writing her pregnancy had continued uneventfully.

Discussion

The first case of combined pregnancy was described by Duverney in 1708[3] as an autopsy finding. Since then there have been many reports in the literature and the latest review puts the number of cases reported as 589[4]. The commonly quoted incidence of this condition has been that of De Voe and Prat[5] in 1948 i.e 1 in 30,000 pregnancies. (In estimating this incidence, the authors assumed that the incidence of ectopic pregnancy and twinning was 0.37% and 1.12% respectively). However with the increased use of ovulation induction agents and rising incidence of ectopic pregnancies most authors agree that this incidence is an underestimation. The accepted incidence now ranges from 1 in 7963[4] to 1 in 16,000 pregnancies[6].

This is the second reported case from the University Hospital, Kuala Lumpur, the first being by Ng et al[7] in 1983. From these two cases our incidence is 1 in 51,643 pregnancies.

The rising incidence of combined pregnancy has been attributed to the increased use of ovulation induction agents and the rise in ectopic gestations.

Berger and Taymore[8] reviewed 204 patients with clomiphene and human menopausal gonadotrophin induced pregnancies and found the incidence of heterotopic pregnancy to be 1 in 100 pregnancies. Yovich et al[9] studied 42 patients undergoing ovulation induction with gonadotrophins and found that 5 out of the 26 pregnancies were multiple; of these, 3 were combined. Superfetation has been implicated as the cause in these patients; dizygotic twinning results from the stimulation of multiple follicles and implantation occurs in separate sites.

The rising incidence of ectopic pregnancies has been related to the increased use of the intra-uterine contraceptive device[10] and the increasing incidence of pelvic inflammatory disease[4,10]. Because of defective tubal ciliary action, there is delay in the transport of the fertilised ovum and implantation occurs in the tube.

Combined pregnancy is a potentially lethal condition; maternal mortality rates of 35% have been reported[11], Early diagnosis is therefore very important.

Diagnostic points in the history are similar to that in ectopic pregnancies; lower abdominal pain, fainting spells, and a period of amenorrhea. Vaginal spotting can be present in 20% of cases[4]. On examination a uterine size compatible with the period of gestation should alert the physician to its possible diagnosis. An adnexal mass is felt in about 44% of cases[4].

An ultrasound examination can be helpful. The essential diagnostic points are the presence of an adnexal mass and fluid in the posterior cul-de-sac together with the presence of intra-uterine gestational sac containing a viable fetus. Our patient had all these findings.

It is important to avoid the risk of rupture of the ectopic gestation when the diagnosis is made and perform early laparoscopy of laparotomy. Sinnathuray and Choo[12] reported a case of combined pregnancy in which the patient collapsed soon after a vaginal examination.

Although there are reported cases of combined pregnancies going to term[13]; mortality rates for the extrauterine pregnancy is 90 to 95%[4] while that of the intra-uterine pregnancy being 20 to 70%[4].

There is concern for the children who have survived the neonatal period; retarded physical and mental development have been reported[14,15]. This has been attributed to the transient maternal hypotension experienced at the time of intra peritoneal haemorrhage. this stresses the need for early diagnosis and treatment in these patients.

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