Non-continuing twin pregnancy on Implanon®

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Case report

A 32-year-old woman, para 4 + 2, presented to the Early Pregnancy Problem Clinic with a history of painful, heavy, irregular vaginal bleeding. A pregnancy test was positive. She was using Implanon® as a contraceptive and the implant had been *in situ* for 23 months.

This woman had conceived twice whilst taking the oral contraceptive pill and therefore chose the progestogen contraceptive implant due to its higher efficacy. Her first Implanon was inserted on 24 January 2001; the patient had regular periods and complained of dyspareunia. The implant was removed in May 2002 as she decided she wanted another baby. She had another successful pregnancy.

In October 2003 a new Implanon was inserted when the patient's baby was 5 months old. At that stage the patient had four children and felt her family was complete. She continued to have regular periods with the implant *in situ*, as had occurred with the previous Implanon.

She was referred by her general practitioner in September 2005 (23 months following Implanon insertion) to the Early Pregnancy Problem Clinic with irregular heavy vaginal bleeding and some cramping lower abdominal pain. A pregnancy test was positive. She was tender in the left adnexa. On transvaginal ultrasound there was a 0.85 cm intrauterine sac and some free fluid in the pouch of Douglas. She was therefore admitted for observation due to the possibility of a ruptured ovarian cyst or an ectopic pregnancy. The β-human chorionic gonadotrophin (β-HCG) level was 5808 IU.

A repeat ultrasound scan performed 3 days later showed two intrauterine sacs (Figure 1). The β-HCG level was rising. The implant was correctly positioned in the left upper arm and was easily removed in the family planning clinic. The implant manufacturer, Organon Laboratories, was informed and asked for the implant to be sent to them for analysis; it contained more than the required amount of hormone. The manufacturer concluded that there was no pharmaceutical indication for the implant failure.

A repeat ultrasound scan performed 2 weeks later confirmed the presence of two gestational sacs but no identifiable fetal pole(s). A further 2 weeks later the size of the sacs remained unchanged on ultrasound and there was still no identifiable fetal pole(s). Evacuation of the uterus was therefore carried out, and histopathology confirmed the presence of products of conception.

The patient's past obstetric history included four normal vaginal deliveries, an ectopic pregnancy in 1997 requiring a right salpingectomy and a previous early pregnancy miscarriage. There were no risk factors for pregnancy and no previous twin pregnancies. The patient had a normal body mass index, had no significant past medical history and was not taking any medication.

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Discussion

Implanon was introduced into the UK in 1999. Clinical trials have shown a 0% failure rate. We report a case of true method failure and the first known case of twin pregnancy conceived with Implanon *in situ*. A case report published in October 2005 described an ectopic pregnancy with Implanon *in situ* in France.[1] An article published in Australia raised the possibility of 13 reported pregnancies with Implanon with no identifiable cause.[2]

Implanon contains 68 mg etonogestrel, which is sufficient to prevent ovulation.[3] The present case raises the possibility that two oocytes may in fact have been released. It is interesting to note that this woman had regular periods with Implanon *in situ*. In our experience this is unusual. Of this woman's six pregnancies, three were conceived whilst using hormonal contraception. Since compliance is not an issue here, this case raises the possibility that for some women with no apparent risk factors, hormonal contraceptives may never provide them with adequate contraceptive protection.

The case has had a profound effect on the patient both psychologically and emotionally. She feels unable to trust contraceptives and is nervous about the possibility of a future pregnancy. Her husband is considering vasectomy. Conversely, she has grieved the loss of her pregnancy and has contemplated another pregnancy but is afraid she would be unable to cope with a further miscarriage. This case underlines the importance of counselling prior to commencing any contraceptive method since none of the currently available methods are 100% effective.

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References

1 Mansour M, Louis-Sylvestre C, Paniel BJ. Ectopic pregnancy with etonogestrel contraceptive implant (Implanon): first case. *J Gynecol Obstet Biol Reprod (Paris)* 2005; **34**: 608–609.
2 Harrison-Woolrych M, Hill R. Unintended pregnancies with the etonogestrel implant (Implanon): a case series from postmarketing experience in Australia. *Contraception* 2005; **71**: 306–308.
3 Bennink HJ. The pharmacokinetics and pharmacodynamics of Implanon, a single-rod etonogestrel contraceptive implant. *Eur J Contracept Reprod Health Care* 2000; **5**(Suppl. 2): 12–20.

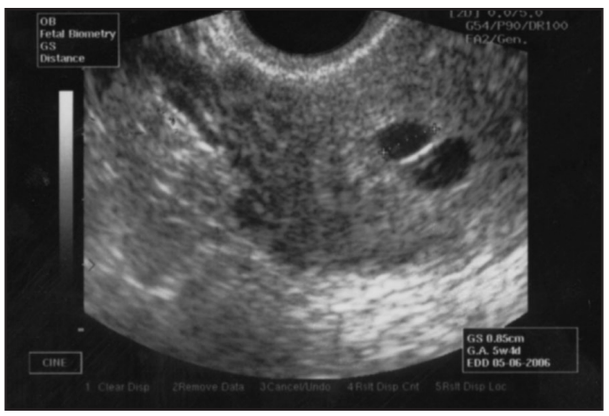

Figure 1 Ultrasound scan showing two intrauterine sacs