

CASE REPORT

A case of hysterotomy for removal of an intrauterine contraceptive device and subsequent pregnancy

Fiona C New, MRCOG, *Specialist Registrar*; **Claire K Candelier**, MD, MRCOG, *Consultant, Women's Unit, Stepping Hill Hospital, Poplar Grove, Stockport, UK*

Correspondence: Dr Fiona New, Women's Unit, Stepping Hill Hospital, Poplar Grove, Stockport SK2 7JE, UK. E-mail: fiona.new@virgin.net

(Accepted 19 April 2004)

Journal of Family Planning and Reproductive Health Care 2004; **30**(3): 177-178

Abstract

The Chinese policy of limiting family size is well known worldwide. We report the case of a patient who required hysterotomy for removal of an intrauterine contraceptive device inserted in China following termination of pregnancy.

Case report

A 35-year-old Chinese woman was referred to the gynaecology outpatient clinic for removal of an intrauterine contraceptive device (IUD) that had been inserted following a termination of pregnancy in China in 1990. Prior to this pregnancy the woman had had an ectopic pregnancy. As a result of this she had undergone a left salpingectomy and evacuation of retained products of conception. She had a regular menstrual cycle with no intermenstrual or postcoital bleeding.

At her outpatient appointment in August 2001 no coil threads were visible, but an ultrasound scan confirmed the presence of a normal sized uterus with an IUD within the uterine cavity.

The patient underwent a hysteroscopy under general anaesthesia to remove the IUD. At hysteroscopy it was not possible to enter the uterine cavity because of the presence of a fibrous band of adhesions across the cavity of the uterus. These adhesions were probably secondary to an infection following insertion of the IUD. The patient and her husband were advised of the findings at hysteroscopy, however they were both insistent that the IUD be removed. It was decided to perform hysteroscopy with attempted removal of IUD under ultrasound guidance. The patient insisted that if the IUD could not be retrieved vaginally she wanted a laparotomy and hysterotomy for its removal.

At hysteroscopy, fluid could be seen outlining the endometrial cavity with the IUD within it. There was a band of adhesions across the lower part of the body of the uterus. Attempted hysteroscopic division of the adhesions was unsuccessful, and a laparotomy and hysterotomy were performed. A longitudinal incision was made in the anterior wall of the uterus and the IUD identified within the cavity and removed.

The IUD was a small, circular, spring-like device. The endometrium within the cavity appeared normal. The patient had an uncomplicated postoperative course. She and her partner were advised that as fluid could pass through the adhesions into the cavity there was a small chance that she may now become pregnant. In view of her past history the patient was advised to attend for an early viability ultrasound scan should she have a positive pregnancy test.

In July 2002 the patient had a positive pregnancy test. An ultrasound scan confirmed a single, viable, intrauterine fetus. She had an uncomplicated pregnancy and was booked for an elective Caesarean section at 39 weeks'

gestation. She presented to the delivery suite at 36 weeks' gestation with a sudden, painless, vaginal bleed. She had ruptured her membranes and was in early labour. She underwent emergency Caesarean section and was delivered of a healthy baby boy weighing 3.04 kg. She made an excellent postoperative recovery.

Discussion

A literature search has failed to reveal any published case reports of hysterotomy for removal of an IUD followed by a successful pregnancy outcome.

The IUD is the most extensively used method of contraception among Chinese women¹ and may account for up to 50% of national contraceptive practice.² The IUD encountered in this case was the most widely used form of device in China until 1993, when the Chinese Government decided to change to copper-containing devices because of the lower associated failure rate.³ This type of threadless IUD was designed with permanent contraception in mind, in accordance with the strict Chinese policy on limiting family size. If there had been no adhesions then the device could have been identified and removed at outpatient hysteroscopy with the aid of some kind of hook-shaped device, or with difficulty in the community setting. A recent letter in this journal⁴ described a case of a young Chinese woman with a similar device in situ, which was removed with the aid of a hook coil remover. This proved to be a difficult procedure because of problems in grasping the device. We have not come across a specific device for removing these coils.

It is thought that the adhesions in the cavity were due to probable infection at the time of insertion of the IUD, although the patient did not recall any associated problems. With appropriate selection of patients, IUDs pose only a small continuing risk of infection. There is a six-fold risk of developing pelvic inflammatory disease within the first 20 days after insertion compared with any other time. After this, the risk of infection is fairly constant at 1.4 per thousand women throughout the time of the IUD's use.⁵ The risk of infection is higher in women under the age of 25 years, with a 2.5-fold increase in comparison with older women.

This case was further complicated by the history of ectopic pregnancy, so an early ultrasound scan was performed to confirm an intrauterine pregnancy. The patient had serial growth scans for maternal reassurance. The decision to deliver by Caesarean section was made in view of the recent hysterotomy scar. At the time of the Caesarean section the lower segment appeared to be normal, with no evidence of intrauterine adhesions. These adhesions may have separated as a result of the increase in size of the uterus during the course of the pregnancy.

In summary, women who have had an IUD inserted in

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China, particularly before 1993, may well have a device that is virtually impossible to remove using standard techniques. This case was an extreme example of the difficulties that can be associated with IUD removal, accompanied by a very successful outcome for the patient.

Statements on funding and competing interests

Funding. None identified.

Competing interests. None identified.

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CASE REPORT

Failed medical termination of pregnancy associated with implantation in a non-communicating uterine horn

Helen Bradshaw, MB ChB, MRCOG, *Specialist Registrar*; **Peter Stewart**, FRCOG, *Consultant, Department of Obstetrics and Gynaecology, Royal Hallamshire Hospital, Sheffield, UK*

Correspondence: Mr Peter Stewart, Department of Obstetrics and Gynaecology, Jessop Wing, Royal Hallamshire Hospital, Tree Root Walk, Sheffield S10 2SF, UK. Tel: +44 (0) 114 226 8163. Fax: +44 (0) 226 8165. E-mail: peter.stewart@sth.nhs.uk

(Accepted 6 April 2004)

Journal of Family Planning and Reproductive Health Care 2004; **30**(3): 178

Abstract

A failed medical termination of pregnancy at 16 weeks' gestation proved to be due to a uterine malformation. Delay in diagnosis resulted in uterine rupture and the need for an emergency laparotomy. Recommendations are made for earlier diagnosis.

Case report

A 17-year-old primigravida presented to the family planning clinic requesting a termination of pregnancy (TOP). She was unsure of the date of her last menstrual period. On examination she had a 16 weeks' gestation size uterus and a transabdominal ultrasound scan detected a viable intrauterine pregnancy with fetal measurements compatible with a gestation of 16 weeks.

After appropriate counselling the patient received 200 mg mifepristone orally followed 48 hours later by 2.4 mg misoprostol vaginally in divided doses.¹ She experienced minimal vaginal bleeding and did not pass any products of conception. A further course of misoprostol and 1 mg gemeprost over the course of 72 hours failed to expel products of conception. A uterine anomaly was considered but two transvaginal ultrasound scans (TVS) repeated after each course of treatment suggested a normal uterus and an intrauterine pregnancy. A further TVS, however, performed with a size 6 Karman cannula inserted into the cervix, demonstrated a bicornuate uterus with the pregnancy in a blind horn, not in communication with the cervix. Before a hysterotomy could be performed the patient collapsed with signs of hypovolaemia and peritonism. At emergency laparotomy she was found to have a pregnancy in a ruptured blind horn of a bicornuate uterus with a haemoperitoneum. The horn and redundant tube were excised. A blood transfusion was not required and the patient made an uneventful recovery.

Discussion

Approximately 4% of fertile women have some form of congenital uterine anomaly due to abnormal fusion of the Müllerian ducts, the most common of which is a bicornuate uterus.¹ It has been estimated that known congenital uterine

anomalies result in a 90-fold increase in the risk of failed surgical TOP when compared to normal uterine anatomy.³ Medical TOP using methotrexate and misoprostol has been successful when surgical TOP has failed in women with congenital anomalies, but the reported cases were of less than 8 weeks' gestation.⁴ The exact nature of the anomaly is important as medical treatment will inevitably fail if an advanced pregnancy is in a blind horn.

Ultrasound scanning is the first line of investigation when TOP fails. Even when a diagnosis of uterine anomaly is suspected, simple TVS may fail to detect an anomaly as in this case. Inserting an echogenic instrument into the cervix prior to the ultrasound investigation allowed clear demarcation of the uterine cavity in communication with the cervical os. Only with this manoeuvre was it possible to demonstrate that the pregnancy was in a non-communicating horn of the uterus. Magnetic resonance imaging may be an alternative modality⁵ but the technique described with ultrasound is simple and readily available in all gynaecology departments.

When surgical or medical TOP fails a congenital abnormality of the uterus should always be considered. The unfortunate events in this case cumulating in an emergency laparotomy emphasise the importance of early, appropriate investigation when repeated attempts at TOP fail.

Statements on funding and competing interests

Funding. None identified.

Competing interests. None identified.

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