Graham Hart, BA, PhD
Centre Director, Centre for Sexual Health and HIV Research, University College London, London, UK

Audrey Prost, BA, PhD
Research Fellow, MRC Social and Public Health Services Unit, Glasgow, UK

References

Missing IUS arms?

We want to describe a couple of cases that serve to demonstrate that the hormone capsule of the Mirena® intrauterine system (IUS) can dislocate during removal thus changing its appearance. As a result, careful examination of the device is required to prevent further unnecessary investigations.

A 58-year-old woman presented to her general practitioner for removal of a Mirena IUS as it was no longer required. It had been inserted at the practice 7 years previously to provide the progesterone component of her hormone replacement therapy.

At the time of removal the cervix and the IUS were visualised without difficulty. More traction than usual was required on the threads to remove the device. On inspection it appeared that the horizontal arms had become detached as they were not visible and the vertical main stem of the IUS had been removed with the hormone release capsule attached.

The patient was asymptomatic and was allowed home. A transvaginal ultrasound scan at home. A transvaginal ultrasound scan transmitted infections: a probability survey. Lancet 2009; 363: 1246–1255.

The intrauterine system (IUS) shown in the upper part of the photograph has a normal appearance. The IUS in the lower part of the photograph has been removed entirely but its appearance is atypical. The IUS in the lower part of the photograph has a normal appearance.

In both cases, when the removed IUS was re-examined, it became apparent that the entire device had been removed from the uterine cavity. The arms were still attached to the main stem of the IUS. The hormone release capsule, usually situated at the base of the vertical stem, had migrated up the shaft, trapping the arms and bringing them together in the midline, making it appear as if they had been detached (Figure 1).

The majority of IUS are removed without difficulty. There are no published cases of IUS arms becoming detached. However, an intrauterine-retained hormone release capsule following IUS removal has been documented.

The common theme in the two cases described above and Forrest et al.’s patient1 is difficult retrieval of the device requiring more traction on the threads than normal. This presumably led to the hormone capsule being dislodged, either migrating up the device and getting stuck covering the arms or becoming detached altogether. Clinicians should always check IUS devices after removal. They should also be aware that after a difficult removal the capsule can migrate and obscure the arms but the device remains complete. Knowledge of this possibility will prevent patients being subjected to unnecessary investigations and interventions to find ‘missing’ IUS arms and for appropriate investigations and interventions when the capsule has detached completely.

The whole of the IUS device is radio-opaque and can be located with either X-ray or ultrasound.1,2 Transvaginal ultrasound is the first-line investigation of choice and it provides the best images to help determine whether or not the IUS is correctly sited within the uterus. The vertical stem of the IUS is visualised in the sagittal plane with multiple reflective parallel planes and in the axial plane as a single echogenic focus.3 However, in the cases reported here the vertical stem was missing. Horizontal arms are rarely seen in the uterus unless it is possible to obtain a coronal view.3 In view of this difficulty abdominal X-ray would confirm whether or not the IUS is correctly sited within the uterus. The vertical stem of the IUS is visualised in the sagittal plane with multiple reflective parallel planes and in the axial plane as a single echogenic focus. However, in the cases reported here the vertical stem was missing. Horizontal arms are rarely seen in the uterus unless it is possible to obtain a coronal view. In view of this difficulty abdominal X-ray would confirm whether or not the IUS is correctly sited within the uterus. The vertical stem of the IUS is visualised in the sagittal plane with multiple reflective parallel planes and in the axial plane as a single echogenic focus.

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Serious morbidity with long-term IUD retention

We have recently encountered four patients with serious intraperitoneal sepsis over an 18-month interval (2007/2008). Each was associated with long-term retention of a copper intrauterine device (IUD), which was identified as the likely source of infection. The IUDs had been in situ for 8, 15, 18 and 20 years, respectively. Three women were several years into their menopause. All four women presented as systemically unwell with a complex pelvic mass. One had uterine obstruction at the site of the abscess, simulating gynaecological malignancy. In all cases laparotomy was technically difficult owing to the inflammatory pelvic mass adhering to bowel. Intermediate or prolonged hospitalisation resulted and, without immediate surgical care, two of the women would probably have died.

Pelvic actinomycosis was reported in two patients’ histories. Cultures of frank pus grew Actinomyces species in all cases. Actinomyces-like organisms (ALOs) had been reported in one of the abscesses and that of the fourth woman. In 2004 she had undergone appendicectomy, which showed...
severe subserosal inflammation without mucosal inflammation leading to the conclusion that the source was elsewhere in the abdomen or pelvis. It is speculative that this episode 4 years earlier might also have resulted from the long-term presence of her IUD. Pelvic actinomyces normally begins as subacute or chronic disease, years or months before presentation.

In summary, on the face of it this would appear to be a simple case of a woman having an IUS inserted and developing a TAC, which was rapidly cured by removing the device. I would be delighted to discover if any of the Journal’s readers have observed a similar case.

Susan L Lipscombe, MRCGP, MRCF
Park Crescent New Surgery, Brighton, UK.
E-mail: suelipscombe1@ntworld.com

Informed consent for IUD fitting
Perforation of the uterus is a rare complication of intrauterine device (IUD) fitting. It is quoted as occurring in up to 2 parts per 100,000 IUD fittings.3 Risk factors for perforation include previous caesarean section and postpartum insertion up to 6 months after delivery. This woman appeared to develop a TAC, which approximated most closely to a cluster attack. After this her attacks had totally stopped. At that clinic visit, in order to help her menstruation, which still raged, I started the patient on norethisterone again. Eighteen months later she is still totally free of attacks, and although her bleeding is still very heavy, she is not prepared to even consider allowing me to reinstate an intrauterine device/system, with or without hormones. She says the pain was the worst pain she could ever imagine and as a result she would never, even for the purposes of research, have an IUS inserted again.

References