INTRODUCTION

Intrauterine contraceptive devices (IUCDs) are a commonly used forms of contraceptions worldwide. However, migration of the IUCD from its normal position in the uterine fundus is a frequently encountered complication, varying from uterine expulsion to displacement in the endometrial canal to uterine perforation. Complete uterine perforation, in which the IUCD is partially or completely within the peritoneal cavity, requires surgical management, and timely and direct communication with the clinician is essential in such cases.1 Urological complications due to IUCD migration have been reported in literature.2 The radiologist plays an important role in the diagnosis of IUCD migration and should be familiar with its appearance at multiple imaging modalities.

This report describes urinary tract obstruction secondary to migrated/displaced IUCD.

CASE REPORT

A 40 years female patient presented with right loin pain for the past 03 weeks. She was on NSAIDs and spasmolytics but pain remained persistent. Her past history was negative for any renal stone disease. She reported to have an IUCD placement 06 months back from a trained gynecologist. She was advised an ultrasound examination of the abdomen and pelvis, which revealed moderate right hydronephrosis and right hydroureter traceable till lower one-third. No calculus could be detected within the dilated system. She subsequently reported again for a CT urography. This investigation revealed a radiopaque T-shaped IUCD had migrated with right limb of Copper-T penetrating through the myometrium and compressing the closely coursing right ureter resulting in hydronephrosis and hydroureter (Figure 1 and 2). A retrograde ureterogram confirmed these findings (Figure 3). A DJ stent was subsequently placed and patient consented to get her IUCD repositioned and replaced.

DISCUSSION

IUCD is the most popular method of reversible contraception in developing countries due to its high efficacy and low cost,3 with millions of women using it worldwide.4 It is generally a safe modality for long-term contraception. On occasion, an IUCD leads to complications. Some of the IUCDs are forgotten, others are lost, while a few are misplaced. Various causes of a missed IUCD can be expulsion, uterine perforation, pregnancy, breaking of the strings, curling of strings inside the uterus etc. Associated complications of an IUCD are bleeding, infection, ectopic pregnancy, septic abortion and uterine perforation with partial or complete migration of the IUCD into adjacent structures e.g. peritoneum, appendix, colon, wall of iliac vein and urinary bladder.

The urological complications reported in literature include partial and complete vesical migration and stone formation, ureteric calculus formation and obstruction,2,5 acute and chronic pyelonephritis, lower urinary tract symptoms (LUTS) and vesico-uterine fistula.6 Migration of an IUCD into urinary bladder after uterine wall perforation has been described previously.7 Urinary bladder calculus formation around an IUCD and fibrosis around the pelvic ureter have also been reported in literature.8 Various imaging modalities are used in the evaluation of IUCDs. Ultrasound is appropriate for an initial evaluation; it is widely available, inexpensive and does not involve radiation. Abdominal radiography more specifically, anteroposterior and lateral radiography, can be helpful in demonstrating an extraterine IUCD and is required for the diagnosis of IUCD expulsion. CT is the...
An unusual cause of hydronephroureter

best modality for the evaluation of complications associated with intra-abdominal IUCDs, such as visceral perforation, abscess formation and bowel obstruction. Magnetic resonance (MR) imaging is not typically used specifically for the evaluation of IUCD due to magnetization potential but modern IUCDs are safely imaged with both 1.5 and 3.0 T-magnets and appear as signal voids. The radiologist should make sure to communicate any findings of IUCD malpositioning to the clinician.

Detection of expulsion or displacement should be immediately communicated to the patient and her healthcare provider, since they can lead to decreased contraceptive efficacy and may require further management. Embedment of an IUCD in the myometrium may necessitate intervention in the outpatient clinical setting and warrants communication of this finding to the referring clinician, as well as clear documentation in the radiology report. Timely and direct communication with the clinician is most urgent for those patients with complete uterine perforation and partial or complete protrusion of the IUCD into the peritoneal cavity. Patients with an uncomplicated perforation will likely undergo laparoscopic removal of the IUCD. Early surgical intervention appears to decrease the likelihood of adhesion formation, thereby making laparoscopic removal easier. Emergent surgical intervention should be guided by the patient’s clinical presentation, supplemented by findings at cross-sectional imaging performed to detect serious intra-abdominal complications.¹

Insertion of IUCD necessitates regular follow-up to confirm its correct position. Displaced IUCD should therefore, be included in the differential diagnosis in any patient having hydronephroureter and who gives history of IUCD placement.

REFERENCES