Intravesical migration of an intrauterine device

Case 7597

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Patient: 23 years, female

Clinical History:

A 23 year old female patient presenting with pelvic pain, hematuria and recurrent urinary infections.

Imaging Findings:

A 23 year old woman (gravid 1, para 1) with regular menstrual cycles, presented with a 3 months history of intermittent pelvic pain, irritative syndrome of the lower urinary tract, hematuria and recurrent urinary infections. The only remarkable information from her medical history was the placement of a T-shape intrauterine device (IUD) two years ago in her country of origin (Peru) without any further medical checks. Gynaecological examination evidenced the missing threads of the IUD. Subsequently, a transvaginal ultrasound examination was performed which revealed the presence of a cooper IUD with the vertical arm crossing the myometrium (Fig 1) and the bladder wall (Fig 2). One horizontal arm was situated in the vesical cavity while the other was partially inserted into the bladder wall and surrounded by calcifications (Fig 3). Cystoscopic removal of the IUD was carried out. The postoperative period was satisfactory. Continuous progestagens and GnRH analogue were administered for 1 month. Permanent urinary catheterization and antibiotic prophylaxis during 2 months were indicated. The patient is currently asymptomatic.

Discussion:

Perforation of the uterus by an IUD is not an uncommon complication. However, the migration of an IUD into the bladder is a rare entity [1]. No symptoms are usually present when the IUD migrates, but erosion into the bladder often results in urinary symptoms, such as repeated urinary tract infections and/or hematuria. Symptoms usually develop months or years after IUD insertion [2]. Asymptomatic cases leading to the erroneous diagnosis of a vesical calculus have also been reported [3]. In the bladder, calcium deposits surrounding the IUD are often present as in this case. Depending on the stage of evolution, stones may be formed, which could complicate the extraction of the device [4]. However, in most occasions minimally invasive procedures can be carried out in order to remove the IUD [5]. In our case, one horizontal arm of the IUD was deeply buried in the bladder wall, so cystoscopy was preferred to hysteroscopy for successful extraction.

Transvaginal ultrasonographic controls should be performed before the insertion of an IUD, in the follow-up at 5-10 weeks after the insertion and then annually. This approach permits the detection of most complications related to insertion and migration of the IUD.
Differential Diagnosis List: Partial migration of an intrauterine device into the urinary bladder

Final Diagnosis: Partial migration of an intrauterine device into the urinary bladder

References:


Figure 1

Description: Sagittal view of the uterus with the vertical arm of a cooper IUD perforing the anterior wall of the miometrium. Origin:
Figure 2

Description: Oblique view showing the distal segment of the vertical arm crossing both the miometrium and the posterior bladder wall. Origin:
Description: Axial view showing the horizontal arms of an IUD (arrowheads) into the empty bladder. Note the calcifications surrounding the arm buried in the bladder wall. Origin: