Removal of an Intra-Abdominal French Catheter through the Laparoscope

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Use of refined instruments for the removal of an intra-abdominal foreign body has enhanced the indication for operative laparoscopy. In particular instances, laparoscopy has proven more advantageous than laparotomy. This case report illustrates removal of an intra-abdominal rubber catheter via a laparoscopic procedure with a double puncture technique.

**Case Report**

A 23-year-old white woman, gravida IV, stillborn I, abortus II, was seen in the emergency room at the Henry Ford Hospital in the second month of her fourth pregnancy. She complained of “fatigue, low abdominal cramps, and minimal vaginal bleeding”. These had begun five days previously, when she had attempted to produce an abortion by intra-vaginal insertion of a red rubber catheter.

Physical examination of the patient revealed a normal temperature of 36.5°C. Her abdomen was soft, with slight tenderness elicited by palpation in the hypogastric area. No rebound tenderness was elicited. Pelvic exami-
nation revealed a normal introitus and vagina, a posteriorly located cervix with no erosion, or evidence of any trauma. There was no vaginal bleeding. The uterus was enlarged to the size of a two-month pregnancy and was soft in consistency and slightly tender. No other significant abnormal physical findings were noted. The white blood count was reported as 7200 cu/mm and urinary pregnancy test was positive.

Since she appeared to have an intact intrauterine pregnancy, the patient was registered for further prenatal care following three days of observation in the hospital.

Two weeks prior to her expected date of confinement, a fetal age abdominal x-ray (Figures 1 & 2), revealed the intra-uterine fetus and an intra-abdominal French catheter. She was delivered by low forceps of a female infant weighing 3430 gm at 40 weeks gestation. Additional investigative studies performed in the immediate postpartum period included an intravenous pyelogram (Figure 3) and a barium enema (Figure 4).

Eight weeks postpartum she was readmitted to the hospital for removal of the intra-abdominal rubber catheter. Under general anesthesia, a double puncture technique was utilized with insertion of a secondary trocar in the midline above the pubic area.

Figure 2
Lateral view, fetal age abdominal x-ray.

Figure 1
Fetal age abdominal x-ray demonstrating an intrauterine fetus and intra-abdominal catheter.

Figure 3
IVP. Note the mobility of intra-abdominal catheter in comparison to Figures 1 and 4.
Laparoscopy for Intra-Abdominal Removal

Figure 4
Barium enema x-ray demonstrating the mobile intra-abdominal catheter.

Visualization of the pelvic organs revealed presence of the catheter in the mid pelvis. A grasping "Eder Cohen" forceps was introduced. The smooth, blind end of the catheter was grasped with the forceps and drawn into the trocar sleeve, and then the trocar sleeve, forceps and catheter were simultaneously pulled through the small suprapubic incision and removed without any difficulties. Post-op course was uneventful, and she was discharged forty-eight hours later (Figure 5).

Discussion

The catheter has been one of the most frequently used means for self-induced abortion. Our case report suggests that, when such a history is reported, an abdominal x-ray should be obtained regardless of the presence of minimal symptoms and physical findings.

Laparoscopy has been widely accepted since early 1960 in Europe and more recently in this country. It has been employed in the Department of Gynecology and Obstetrics at Henry Ford Hospital since 1965. It is a useful addition to the gynecologist's diagnostic and operative procedures. The technique has been enhanced by development of refined optical systems, high intensity fiber optic cord and automated devices to induce and maintain an adequate pneumoperitoneum during the course of the procedure.

Figure 5
Palmer forcep, trocar, and French catheter, #16.
The procedure is being carried out in the operating room, under general anesthesia with endotracheal tubing. The technique employed is the same as described originally by Steptoe in England with the use of CO₂ for pneumoperitoneum. In a subsequent publication, he listed its main usefulness as follows:


B- Operative: Tubal fulguration for sterilization purposes, ovarian biopsy, aspiration of ovarian cyst for cytologic evaluation, lysis of pelvic adhesions, fulguration of endometrial implants, and removal of foreign bodies: IUD, Mulligan Hood after fimbrioplasty.

The use of laparoscopy for removal of foreign bodies has been limited. In the patient reported, the procedure was advantageous over laparotomy because hospital stay and recovery were shortened and uneventful.

Summary

An intra-abdominal French catheter was removed by laparoscopy. It had been used by a patient in an attempted self-induced abortion. Emphasis is placed on routine radiologic examination of the abdomen, kidney, ureter and bladder whenever such a history is given. Current uses and indications for laparoscopy are summarized.

References


