

Received: April 03, 2017
Accepted: April 13, 2017
Published: May 02, 2017

Laparoscopic Removal of a Migrated Intra Uterine Device Embedded in the Anterior Abdominal Wall in Yaounde (Cameroon), a Third World Country

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1 Abstract

1.1 Background

Uterine perforation is a serious complication which can happen after intrauterine device (IUD) insertion. Following the uterine rupture, an IUD may migrate into gynecologic, urinary or gastro-intestinal system organs. There are many reports of migrated IUDs but fewer reports of IUDs embedded in the abdominal wall. Laparoscopic removal of a migrated IUD wasn't yet described in our country.

1.2 Case Presentation

We report a case of a 32-year-old Cameroonian woman who presented to our gynecologic unit for a follow-up visit 3 months after uncomplicated IUD insertion. The IUD string wasn't found. Abdominal CT-scan showed the IUD embedded in the anterior abdominal wall. Through a laparoscopic approach, the device was removed.

1.3 Conclusion

Surgical removal of a migrated IUD reduces the possible risks of abdominal complications. The laparoscopic approach for migrated IUD removal may be simple and safe even in developing countries as our own.

2 Keywords

Intrauterine device migration ; Cameroon ; Laparoscopy ; Uterine perforation

3 Introduction

Intrauterine device (IUD) introduced in 1909 by RICHTER, is worldwide the most popular form of reversible contraception [1], with an estimated 175 million women using it in 2007 [2].

Complications of IUD insertion are uncommon but may include expulsion, retraction into the cervix or uterus, bleeding, infection, ectopic pregnancy and perforation through the uterine wall and into the abdominal cavity or neighboring organs. Among these, perforation is the most serious, with an incidence reported to be between 1.3 and 1.6 per 1000 insertions [3]. Perforations tend to occur in the immediate post-insertion period, especially during the first 6 months [4], but cases of uterine perforation have also been noted several years after insertion [5,6]. After perforation, the device can migrate into the gynecologic, urinary or gastrointestinal system organs. We report the first case of a laparoscopic removal of a migrated IUD in Cameroon.

4 Case Presentation

A 32-year-old woman, gravida 3, para 3, was presented to our gynecology unit for a follow-up visit 3 months after uncomplicated IUD insertion. One month before, she began complaining of intermittent hypogastric pain. On vaginal examination, the string wasn't found. An abdominal X-ray depicted the IUD in the abdominal cavity at hypogastric region (Figure 1). A computerized tomography of the pelvis and abdomen confirmed the IUD in the abdominal cavity, embedded in the hypogastric wall (Figure 2).

The patient was then transferred to the visceral and laparoscopic unit for removal. Upon admission, she underwent a physical examination that detected no abnormalities, apart from light tenderness upon hypogastric palpation. Preoperative workups were normal. A laparoscopic approach was decided. An urinary tube was inserted.



Figure 1: Abdominal X-ray

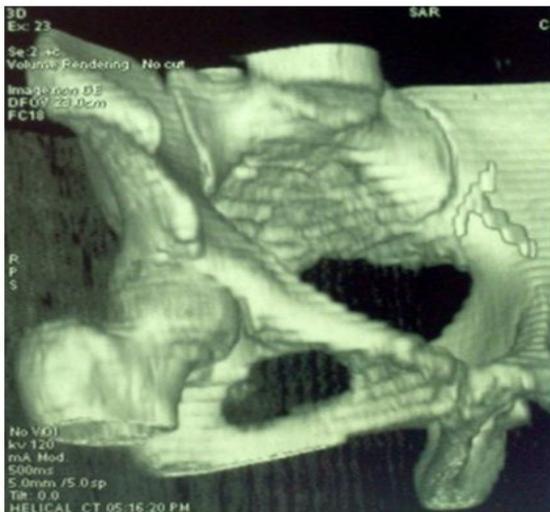


Figure 2: Abdominal CT-scan showing IUD embedded in the anterior abdominal wall.

We introduce the first 10 mm optic access supraumbilical by “open-coeloscopy”. The IUD was found embedded into the hypogastric wall, omentum attached on it, with the IUD string in the peritoneal cavity (Figure 3). Uterus and adnexa were normal. Two working 5 mm trocars were then inserted one in each flank. The omentum was disinserted, the parietal peritoneum excised and the device removed (Figure 4). The post-operative course was uneventful with discharge at day 1. The cosmetic result was good (Figure 5).

5 Discussion

Most cases of migrated iuds are asymptomatic and fewer will present with acute symptoms [7]. This leaves close follow-up after IUD placement as the best course of action to preemptively identify IUD perforation as is highlighted in our case.

The management of intraperitoneal IUD in asymptomatic or pauci-symptomatic patients is somewhat controversial. World Health Organization guidelines recommend removal of migrating

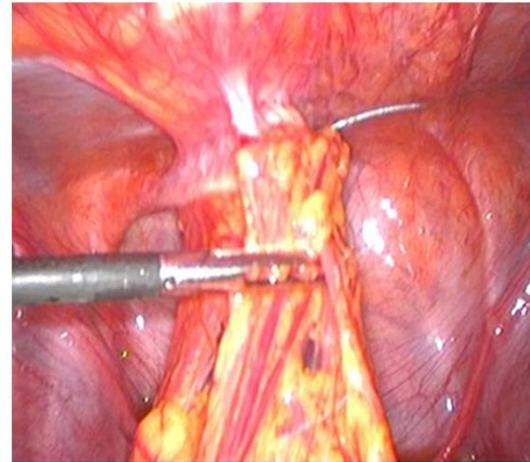


Figure 3: Laparoscopic view of migrating IUD embedded in the hypogastric anterior wall with omentum attached on it and the string free in the peritoneal cavity.

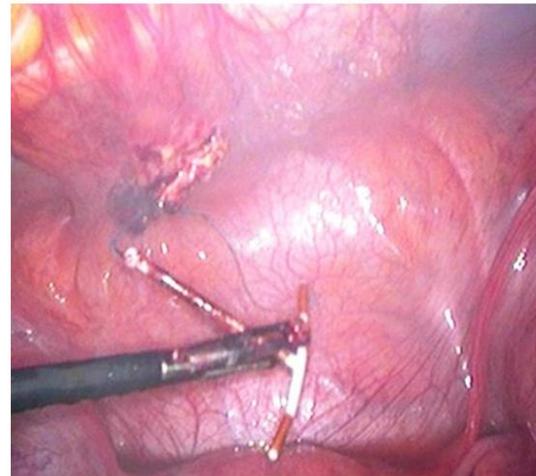


Figure 4: IUD removal.

IUD irrespective of their type and location [7]. It is this recommendation we followed in our case since our patient was pauci-symptomatic.

In a recent literature review, MOSLEY et al [7] noted about 129 cases that perforated IUD have been found in many locations including free in pelvis(32,5%), embedded in the omentum (31,7%), attached to bowel (10%), attached to uterus (6,9%), free in peritoneal cavity (4,6%), attached to broad ligament (3,8%), mass of bowel and pelvic structures (3,1%), mass of omentum and pelvic structures (2,3%), attached to rectum (2,3%), attached to tubo-ovarian (1,5%) and attached to bladder (1,3%). The location of the IUD in our case, embedded in the anterior abdominal wall, appear then to be particular and uncommon.

Laparoscopic removal of intra-abdominal IUD should be the preferred choice of surgical management [7,8]. Laparoscopy is a safe and minimally invasive procedure with less complications,



Figure 5: Cosmetic results.

shorter operative time and hospitalization compared to laparotomy. In our practice, this was the first time we encountered this clinical scenario. In our knowledge it is the first published case of IUD migration in our country. It can be explained by the fact that physicians perceive migrated IUD as result of malpractice and remove it without any report. We encourage surgeons to report these cases and use laparoscopic approach for removal.

6 Conclusion

Our patient presented with a particular location of a migrated IUD, embedded in the anterior abdominal wall. A migrated IUD should be removed when the diagnosis is made. Laparoscopy approach, as such in this case, can be performed for removal. We encourage this approach for migrated IUD removal even in developing countries as our own.

7 Authors' Contribution

All persons designated as authors above, qualify for authorship, they took active part in the management of these patients and write up of this manuscript. All authors have read and agreed

to the final manuscript.

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