Asian Journal of Case Reports in Surgery

Volume 17, Issue 1, Page 21-24, 2023; Article no.AJCRS.96677

Migrating Intrauterine Device Mimicking an Acute Appendicitis: A Case Report

M. Lamghari [a], M. Sabur [a], I. Elazzaoui [a], H. Hablaj [a], A. Maazouz [a], M. Najih [a], H. Kaoui [a], S. M. Bouchentouf [a], M. Moujahid [a] and A. Bounaim [a*]

[a] *Department of Visceral Surgery, Faculty of Medicine and Pharmacy of Rabat, Mohammed V Military Hospital, Rabat, Morocco.*

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

Open Peer Review History:
This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: https://www.sdiarticle5.com/review-history/96677

Case Report

Received: 09/12/2022
Accepted: 12/02/2023
Published: 18/02/2023

ABSTRACT

The intrauterine device is the world's third most popular contraceptive method. However, it is not without risk. Indeed, serious complication can occur such as uterine perforation and migration to adjacent abdomino-pelvic structures. We report a case of a migration of intrauterine device mimicking an acute appendicitis which was removed under laparoscopy. Laparoscopy is the most common surgical procedure, and it is also considered the first recommended treatment.

Keywords: IUD; appendicitis; laparoscopy.

**Corresponding author: E-mail: lamgharimohammed90@gmail.com;*

1. INTRODUCTION

According to data from the World Health Organization the intrauterine device is the third most used contraceptive method worldwide, it has been shown to be a contraceptive method with a high efficacy rate and an adequate margin of safety and widely used [1-5]. “Among the infrequent but potentially serious complications is has been associated with, there is uterine perforation which can cause lesion in adjacent organs” [6]. We report a case of a migration of intrauterine device mimicking an acute appendicitis which was removed under laparoscopy.

2. CASE PRESENTRATION

A 52-year-old women, was admitted to the emergency department of our hospital with acute abdominal pain in the right iliac fossa with fever. The patient's general condition was impaired. On physical examination she had abdominal guarding in the right iliac area and good hemodynamic status with normal blood pressure. Laboratory studies found a biological inflammatory syndrome with hyperleukocytosis (15000/uL) and high C-reactive protein level (120 mg /L). In front of these clinico-biological signs we have suspect an acute appendicitis what imposed the realization of an abdomino-pelvic CT-scan which sowed an epiploic plastron containing a foreign body in the right iliac area (Fig. 1). The patient disclosed that she had received an insertion of an IUD 23 years ago.

An emergency surgery was planned under general anesthesia with laparoscopic approach, the IUD was removed from the large omentum (Fig. 2, Fig. 3), and there was no perforation in the uterus or the bowel.

The patient goes well and she was discharged 2 days after.

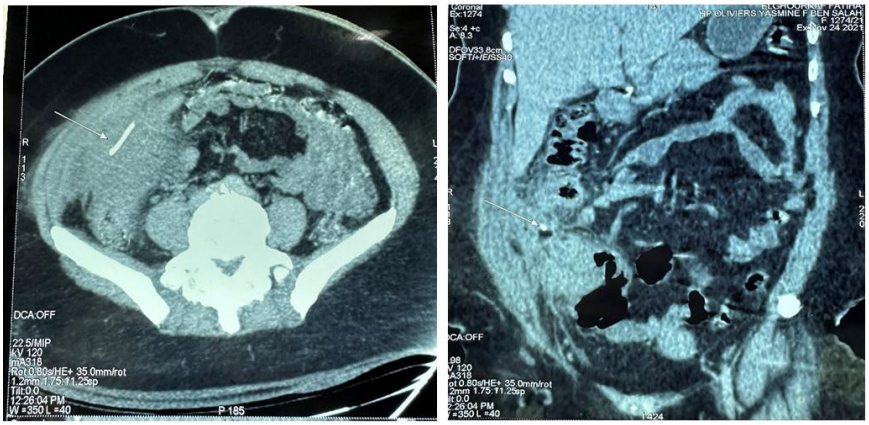

Fig. 1. CT-scan imaging showing the IUD in the right iliac area

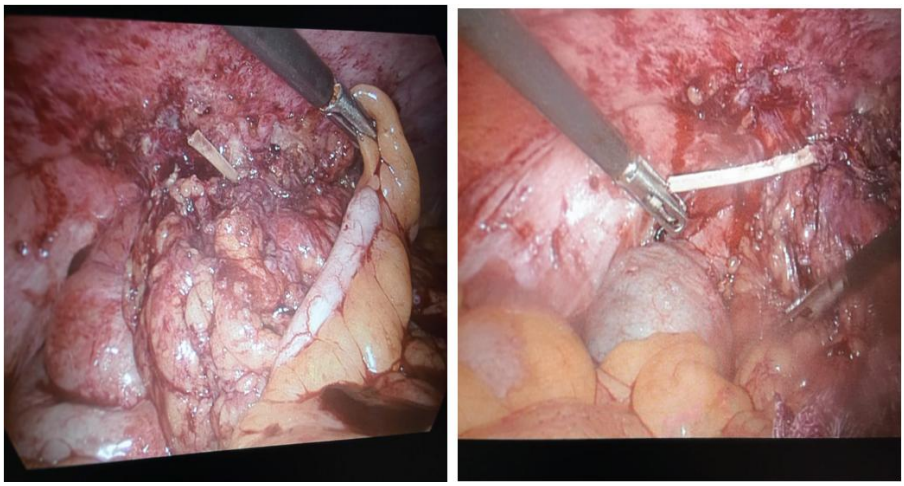

Fig. 2. Operatory imaging showing the removing of the IUD

Fig. 3. The IUD after removing

3. DISCUSSION

"The intra-uterine device is a safe contraceptive method with a 99% of effectiveness and widely used worldwide" [7]. "However, it is not without risk. Indeed, serious complication can occur such as uterine perforation and migration to adjacent abdomino-pelvic structures" [8].

"The risk factors of the occurrence of uterine perforation by the IUD can be linked to the device itself such that its structure and components of the inserted tube. These risk factor may also be linked to the size, position, or the anatomical configuration of the uterus and the insertion period like post-partum and post-abortion" [9].

"Spontaneous perforation of the uterus by IUD is rare with a reported incidence of 0,001-0,05 %" [10]. "Severe intra-abdominal complication may ensue if an IUD is lost in the abdominal cavity and not removed. Intra-peritoneal IUD do not necessarily produce symptoms but may intrude neighboring viscera, such us the bladder or intestines" [11,12]. "An IUD related uterine perforation can remain undetected at the time of insertion and women can be asymptomatic for months or even years before the diagnosis of uterine perforation is made, therefore to determine the location of the device, a routine gynecologic examination should be scheduled 6 weeks after insertion as a proactive prevention method" [13].

"Most experts including the World Health Organization and the International federation for family Planning recommend the surgical removal of device once the migration is diagnosed before the occurrence of severe complications" [9] [14,15]. "The most frequent surgical procedure is laparoscopy which is also considered first treatment option. However, its success rate varies between 44 and 100%, depending on the presented complication and surgeon's expertise. Up to 25 % may have the necessity of conversion to laparotomy" [6,16,17].

4. CONCLUSION

The migration of IUD may be asymptomatic for months or years, and it's may occur serious complication. The IUD must be retired as soon as the diagnosis of migration is confirmed. Laparoscopy is a surgical procedure that can be done on an elective basis and allows for the removal of devices and organ repair.

CONSENT

As per international standard or university standard, patient(s) written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Peer-review history:
The peer review history for this paper can be accessed here:
https://www.sdiarticle5.com/review-history/96677