Laparoscopic Management of a Translocated Intrauterine Device Embedded in the Gastric Serosa

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Abstract

Intrauterine devices (IUD) are the most common contraceptive methods all over the world. Besides many advantages, there are also some complications of this method. The most important complication of IUD is uterine perforation. The reported incidence of IUD perforation ranges from 0.2 to 9.6 per thousand insertions. In this article we would like to report a case that has an IUD migrated to the gastric serosa.

A 41 years-old Turkish woman presented with abdominal pain. Plain X-ray of the abdomen demonstrated two IUDs, one in the upper quadrant of the abdomen, the other in the pelvic area and determined in the endometrium by TV-USG (transvaginal ultrasonography). Laparascopy was performed and the IUD, lying over the omentum of stomach was removed.

This report demonstrates the first case in the literature that has an IUD embedded in the gastric serosa and also a second IUD in uterine cavity. The management was performed laparoscopically. No complication was observed during and after operation.

Keywords: Intrauterine Device, Gastric Serosa, Laparoscopy.

Introduction

Intrauterine devices (IUDs) are the most common contraceptive methods all over the world, especially in devoloping countries. The main advantages are; low cost, long lasting, high efficiency and the reversible nature. Other benefits of the IUDs are that their use is not associated with systemic side effects, is not related with coitus and when inserted once, no further contraceptive efforts are required for the couple. On the other hand there are also some complications of this method, uterine perforation being the most important. The reported frequency of uterine perforation ranges from 0.2 to 9.6 per thousand insertions.[1] A migrated IUD can be found in different positions in the pelvic or intra-abdominal cavity, which may cause different complications and morbidities or may be asymptomatic.

In 15% of cases with perforated uterus, IUDs may intrude upon neighbouring visceral organs, most often the intestinal tract.[2] IUD migration to the bladder has also been reported. We report, to the best of our knowledge, the first case in literature, involving a misplaced IUD that had migrated a long distance to the omentum and was embedded to the gastric serosa and resulted with abdominal pain.

Case Report

A 41 years-old Turkish woman 9th gravida, 7 para, 2 abortus, presented to our clinic with abdominal and back pain. Her medical history, included an IUD insertion 13 years ago. Six years after the IUD insertion, she had a gynaecological examination for lower abdominal pain and the patient indicated that IUD had been removed and the new IUD had been applied. In last 2-3 years, she had upper quadrant abdominal pain, which became worse for the last 2 months. Routine laboratory tests were normal. Plain x-ray of the abdomen demonstrated two IUDs, one in the upper quadrant of the abdomen, the other in the pelvis (Figure).

Gynaecological examination detected the tail of the IUD in the cervix. On transvaginal sonography there was minimal free pelvic fluid, and the first IUD was visualized in the endometrial cavity. As the second IUD was not seen in the endometrial cavity the patient had to be subjected to a laparoscopic examination.

Figure: Plain abdominal radiography revealed two IUDs one in the left side of the midline and the other one in the pelvis.

Before laparoscopy, first the IUD in the endometrial cavity was removed by pelvic examination. There were intestinal adhesions lying over the omentum of the stomach. After releasing the adhesions, the "lippes loop" type IUD was removed from the gastric serosa. The drainage tube was placed in abdomen after the operation was terminated. No complication was observed during and after the procedure.

Discussion

IUDs are the most common and available contraception method worldwide. However, there are many complications of IUD insertion which include vaginal bleeding, lower abdominal pain, ectopic pregnancy, pelvic infections (pelvic inflamatory disease) and perforation of the uterus. Uterine perforation can be complete or partial, which was orginally thought to occur at the time of insertion but it has now been realized that migration and erosion can occur at any time. Various factors are responsible for uterine perforation by IUDs. Risk factors include the time of insertion, (after the last delivery, abortion, lactation, early postpartum period), undiagnosed pregnant uterus, congenital uterine and cervical anomalies, acutely anteflexed or retroflexed uterus and former uterine operations. Migration of the IUD into the neighbouring organs or the abdominal cavity is a rare complication.[3] In a review of 165 cases, the omentum, rectosigmoid, peritoneum, bladder, appendix, small bowel, adnexa, and iliac vein were the location of migrated IUD.[4]

All IUDs are radio-opaque, so that the plane abdominal radiography is the most important method to evaluate the misplaced IUDs. Transvaginal sonography provides the best view for locating the IUD, but it restricts the space for its simultaneous removal.[5]

There have been many case reports, about IUD migration, in the literature. However, this is the first case with migration of the IUD into the gastric serosa. These patients may be asymptomatic or may have abdominal pain, dysuria, polyuria, and pelvic pain, based on the location of the IUD. Our patient had an upper quadrant abdominal and chronic pelvic pain. The upper quadrant abdominal pain was related to the misplaced IUD.

To evaluate the misplaced IUD, not only the vaginal sonography, also a plain radiography of the abdomen must be performed. Although we have observed the IUD on vaginal examination, we performed plain radiography of the abdomen since a second IUD in the abdomen could explain symptoms of the patient.

Laparotomy and laparoscopic management have been

used for IUD removal in the cases with IUD migration.[6] Laparotomy has more complications such as longer period of hospitalization, more scar formation and has limited view during the operation. Laparoscopy has now become the method of choice for the treatment.[6] Successful treatment of the IUD migration by laparoscopy has been reported in a few cases.[7-9] In this case we released the adhesions and removed the IUD from the gastric serosa and controlled the haemorrhage on the gastric serosa by laparoscopic management successfully. No complication was seen during and after the laparoscopy.

To the best of our knowledge, we report the first case of an IUD that migrated to the gastric serosa, and was successfully managed.

Conclusion

Uterine perforation is the most important complication of the IUD insertion. Migration of the IUDs into the abdominal cavity and adjacent organs are very rare complications. The diagnosis is often made intraoperatively. Radiological examinations such as plain abdominal radiography can lead to a preoperative diagnosis. Laparoscopy may also be used for diagnosis and for therapy.

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