

# Unsuspected Multiple Intrauterine Contraceptive Devices In An Infertile Woman: A Case Report

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## Abstract

A 36 year old Para 1+2 patient presented for infertility management and was found to have 4 intrauterine contraceptive devices loaded apparently in previous attempts at treating intrauterine adhesions. Ultrasound scan revealed that three of the devices were outside the uterus. The patient had no knowledge she had any device on her and had remained infertile for 15 years. The intrauterine device was removed with a retrieval hook while the intraperitoneal devices were identified and removed at laparotomy.

## INTRODUCTION

When a patient presents with infertility, it is unexpected to discover an indwelling intrauterine contraceptive device in situ. However when an interplay of clinical manifestations resulting from intrauterine adhesions is incompetently managed, multiple complications are inevitable. Infertility remains one of the commonest reasons for gynaecological clinic attendance in Sub Saharan Africa and tubo-peritoneal factors have been implicated most frequently. <sup>1</sup> Routine investigations therefore include hysterosalpingography at which uterine pathologies such as fibroids, endometrial synechia, congenital malformations can also be detected,

Severe endometritis following prolonged obstructed labour especially when treated with caesarean section is a probable cause of intrauterine synechia. <sup>2, 3</sup> Asherman syndrome presents clinically with infertility, recurrent abortion and menstrual aberration and radiologically, as non or unevenly filled uterine cavity on HSG. <sup>2, 3</sup> Management involves lysis of the adhesions, preferably hysteroscopically, and mechanical distension of the endometrial cavity with hormonal treatment to facilitate endometrial regrowth and optimisation of fertility outcome. It might require multiple procedures to achieve satisfactory anatomical results. <sup>2, 4</sup>

Intrauterine contraceptive device, IUCD, is an effective and safe form of contraception and it is also used for the mechanical distension of the endometrial cavity in the management of uterine adhesion or synechia. <sup>4, 5</sup> Uterine perforation remains its most serious complication. <sup>5</sup>

It is however standard practice that the patient should be adequately counselled on the nature of procedures performed on her, otherwise a patient with an indwelling intrauterine contraceptive device would not seek treatment for infertility. It is therefore very essential that proper clinical history and relevant investigations are required to avoid unwarranted treatment and expense. It is important to ascertain that women who had IUCD inserted at some time had indeed had the device removed, and to ensure that the whole device was removed, leaving no part in the uterine cavity. This is especially important in cases of infertility, before embarking on any invasive procedure. This article illustrates the incidental finding of four IUCDs on radiological investigations of an infertile woman who was obviously being treated for Asherman's syndrome.

## CASE REPORT

A.O, a 36year old female fashion designer, gravida 3 para 1 +2, the only wife of her husband, a 44 year old baker, came to the gynaecology clinic with a 5 year history of irregular menses, intermittent lower abdominal pains, and inability to conceive for 15 years inspite of regular unprotected sexual exposure following the delivery of her last child through caesarean section (CS) for obstructed labour. The child was alive and breastfed for 1 year. She claimed to have been amenorrhoeic for 7 years after which her periods resumed irregularly following various treatments that involved vaginal instrumentation. She was told she had an intrauterine contraceptive device inserted and this was removed 6 months later. She had occasional whitish foul odoured

vaginal discharge. Menstrual flow was scanty but not related to the lower abdominal pain. Pains were dull and had no specific radiation. There were no urinary symptoms. . She had no history of galactorrhoea. Her menarche was at 16 years and cycle remained regular until her last confinement, She had 2 induced abortions prior to her marriage at which there were no complications . There was no history of hypertension, diabetes, asthma or peptic ulcer disease. On examination, she was anxious, neither pale, icteric nor febrile. Cardiovascular, respiratory and abdominal examinations revealed no abnormality. Her blood pressure was 130/75. A working diagnosis of secondary infertility was made. The husband's seminal fluid analysis was essentially normal. Her hormone profile showed normal LH 6miu/ml, FSH 8miu/ml, Prolactin 15ng/ml and progesterone 20ng/ml.

Hysterosalpingography (HSG) revealed 3 intrauterine contraceptive devices (two copperT and one Lippes loops)in the pelvis and a patchy non homogenously filled uterine cavity. A uterine sound was introduced to localise the devices on a plain abdominal X-ray which suggested that only 1 device was intrauterine and identified the presence of three other devices, higher up than the first. An ultrasound scan confirmed that only one of the devices was intrauterine and this was removed with an IUCD retrieval hook. . She had an exploratory laparotomy, at which the two lippes loop were found to be buried in omental adhesions , 5cm apart in the right iliac fossa region. The third, a copper T IUCD was found in the point of reflection of the peritoneum, within adhesions in the utero-vesical fold. Minimal peritoneal fluid was present and the tubes, ovaries and bowel were normal. Minimal blood loss of 200mls occurred. Procedure was well tolerated and the patient was discharged home on the 4<sup>th</sup> post operation day.

### DISCUSSION

An estimated 60 million women wear IUCDs and the problem of forgotten or missing IUCD is under estimated <sup>6</sup> as its presence is only indicated by a positive history and the patient's ability to feel its thread in the vagina.

Forgotten or missing IUCDs may be attributed to so many reasons. The absence of the threads may be misinterpreted, patient may simply have forgotten that she had a device, or it might have been fragmented during removal. <sup>6</sup> However the patient presented was sure she had an IUCD which was removed This emphasises the fact that proper history taking and a thorough examination is essential in all infertile

women who give a history of wearing a device at one time or the other. Inability to locate the string of an IUCD may indicate that the device is within the uterine cavity, was expelled or worst still, has perforated the uterine wall <sup>7</sup> . Failure to localize and remove the IUCD may result in intra-abdominal complications. <sup>8</sup>

Uterine perforation remains the most serious complication of the IUCD. The incidence of uterine perforation following IUCD insertion has been estimated at 1.2/1000 insertions. This occurs more commonly in the puerperium, usually at the time of insertion of a new device <sup>8</sup> or if a pre-existing device is not removed. <sup>8</sup> This was most likely what happened in the patient presented. Moreover, this patient had uterine synechia as suggested by her history and diagnosed on the hysterosalpingography (HSG) done, <sup>9</sup> Fig 1

### Figure 1

Figure 1: showing HSG with patches of contrast in the pelvis. The uterus is not homogenously filled and a Copper T IUCD is seen within it. A second copper T is seen directly above this, lying perpendicular to it. A lippes loop is demonstrated well above these, in the upper part of the pelvis



There is agreement that the major cause of uterine synechia is trauma to the uterine endometrium in the puerperium. <sup>2, 3, 10</sup> Intrauterine adhesions may also be caused by manual vacuum aspiration. <sup>11, 13</sup>

Infertility, recurrent abortions or menstrual aberrations after any uterine trauma should cause the gynaecologist to suspect the presence of intrauterine adhesions. <sup>3</sup> These manifestations were all present in the patient presented.

The use of ultrasound scan or plain abdominal x-ray is the simplest and most readily available means of investigating these women. Hysteroalpingography could also be employed especially when there is a probability of the device being extrauterine. All these were done in this patient and they all revealed four IUCDs, (Fig 2,)

### Figure 2

Figure 2: A plain abdominal x-ray showing a uterine sound within the uterus with its tip almost touching the lower end of a copper T IUCD and the second one is just above this, lying on its side. The two lipper loops are seen high up in the abdomen, obviously outside the uterus and the pelvis except the ultrasound scan which confirmed one intrauterine and queried one in the anterior wall. The other two were not visualised. The one in the anterior wall is most likely the one seen in the peritoneal reflection over the uterus and the bladder at laparotomy Fig 3.



### Figure 3

Figure 3: Shows the IUCD specimens at laparotomy



Hysteroscopy is the method of choice for diagnosing uterine adhesions.<sup>3, 12, 13</sup> The safest, least traumatic, and most precise method of treatment is hysteroscopic adhesiolysis, with the placement of a mechanical device such as a lipper loop for endometrial distension.<sup>3, 13</sup> combined with a course of estrogens.<sup>13</sup> Blind methods of adhesiolysis should be avoided because of the risk of perforation and creation of false passages.<sup>12</sup>

The patient should however be adequately well counselled about the mode of treatment to enable her actively participate in her further management by giving appropriate medical information to avoid unnecessary intervention as occurred in this patient. An extensive literature search revealed no more than two IUCD in situ in a single patient.<sup>7</sup> Therefore the discovery of four IUCDs in this patient is unusual and raises questions as per the managing physician's negligence. A simple abdominal x-ray done in this patient prior to the insertion of the last two IUCDs would have called attention to the anomaly of the situation and prompted at least a referral. It is lucky that the patient did not have any major complications associated with uterine perforation.<sup>8</sup>

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