

Partial Perforation with Postpartum Intrauterine Device Cu 375: A Case Report

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INTRODUCTION

Family planning reduces the risk of unintended pregnancies among women, and it improves both maternal and fetal well-being by allowing couples to plan and prepare for the pregnancies they desire. As such, family planning also has major public health implications. The intrauterine device (IUD) is the mostly used method of contraception. It is safe and effective when inserted by trained health providers. However, few complications such as infection, expulsion and perforation occur despite perfect uterine insertion. Perforation caused by an IUD is an uncommon complication that occurs in approximately 1/1,000 insertions [1] and it is rare with postpartum IUD insertion. Uterine perforation might be considered as the most serious complication because it will eventually cause contraception failure and can even lead to expensive surgical intervention. Perforation with IUD and surgical intervention thereafter will be demoralizing; the consequences can be even more serious. It is imperative that such serious complication is to be minimized by proper insertion by trained professionals and ensured follow-up and not to ignore clients complains.

CASE REPORT

We describe the case of a 22 year old woman, para 2, who visited the OBGYN clinic, Bolangir with the complaint of missing IUD string with several failed attempt of removal. Multi-arm intrauterine device (Cu 375) had been inserted Immediate Post-Partum following her last childbirth 20 months back. She was having regular but painful menstruation for last 8 months. Had episodes of severe intermittent sharp pain over right lower quadrant (RLQ) mostly during menstruation, not associated with any other symptom like vomiting and fever. Treated with antibiotics two times with the presumptive diagnosis of appendicitis. Found to have missing IUD string two weeks back during routine checkup. Attempts were made for removal of the IUD in different hospitals but failed. Clinical examination revealed stable vital parameters and a soft abdomen. Bowel sounds were present. On gynecological examination, the perineum, vulva and vagina were normal, the uterus was

anteverted and of normal size, and there was definite tenderness over right fornix behind the uterus with no palpable mass. On speculum examination, the cervix was healthy. The IUD string was not seen at os. Ultrasound showed a 4 mm endometrium, normal uterus and bilateral normal adnexa and a dislocated and malposition IUD on the right between ovary and the uterus. Plain X-ray of the lower abdomen (right oblique view) with uterine sound placed in the uterine cavity, visualized IUD placed transversely right to the uterus. The patient was hospitalized. Laparotomy was done under Spinal anesthesia. The device had perforated the uterine wall. The two flexible side arms and the copper-bearing stem had completely eroded into the wall and laying free in the right broad ligament. The lower end of the device was found anteriorly. It was removed from the site of perforation on the right lower lateral part in the posterior wall of the uterus. The rent was closed. Bilateral tubal ligation done on request of the couple. Abdomen closed in layers. Postoperative period was uneventful.

DISCUSSION

IUD is a safe, effective and widely used contraceptive method, but complications can occur as with other methods. The optimal position of any IUD is in the upper fundal portion of the uterine cavity. Clinical studies have shown that in order to achieve maximal clinical effectiveness location of the device near the fallopian tubes is critical and is the rationale as to why some copper releasing devices have additional copper releasing components on the transverse cross arms [1]. None of the modern Intra Uterine Devices is immune to perforation. Primary perforation (perforation during insertion) is very rare if the device is inserted correctly, i.e., placed at fundus of a contracted

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uterus with Kelley's forceps. Displacement can take many forms: the IUD can rotate on its axis or transversely with the retention arms unfolded or extended in any position. The arms of the displaced IUD often become embedded or can even perforate the uterine wall with the uterus continuously attempting to expel it especially during menstruation where uterine forces can be much severe [2]. Perforation of the uterus by an IUD is a rare but serious complication. Uterine perforation and migration to the colon, bladder, ureter, or fallopian tubes have been reported. Such perforations are generally observed when the insertion is performed immediately after vaginal delivery or curettage. These patients generally complain of abdominal pain or cramps, usually have menstrual abnormalities, and even can have pregnancies [3]. An IUD that migrates laterally will eventually find its place in the Broad ligament. In our case IUD was located in the broad ligament obliquely with the free end of the vertical stem being placed anterior and superiorly.

However, it is more important to be on a regular checkup schedule and the symptoms mustn't be ignored. In the case

reported here, the patient had symptoms of severe lower abdominal pain several times but its relation to the IUD was not thought of. Missing thread was detected at the time of removal. Ultrasonography could have detected the malposition of the IUD which eventually ended in complete perforation.

Though uterine perforation with an IUD an uncommon event is an important risk that must be discussed with the patients. It is easy to prevent traumatic "primary" perforation. The service provider has to be vigilant during insertion to prevent it. Again, it must be diagnosed early for timely and appropriate management. "Secondary" perforation is a much gradual process. It occurs by gradual erosion. Embedment can lead to partial then to complete perforation [4]. Most cases are asymptomatic and are recognized during routine follow up and even at the time of removal of the device. Ultrasound which is widely available should be used whenever an IUD user complains of menstrual problem or pain. Routine follow-up must include visualization of thread at the os (**Figures 1 and 2**).

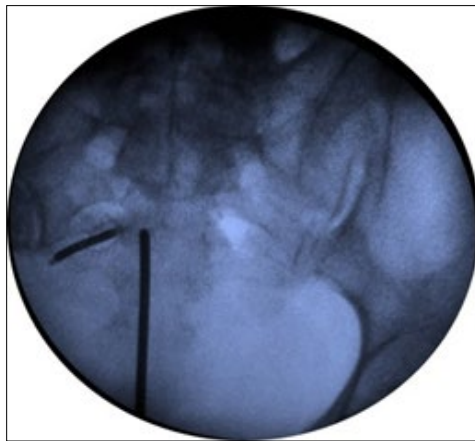


Figure 1. Anterolateral radiograph of abdomen and pelvis with uterine sound *in situ*.



Figure 2. Transversely placed IUD is seen through dissection behind the uterus.

Insert (A) Posterior surface before incision (B) The Cu 375 is bulging over right anterior broad ligament.

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