



Primary Uterine Perforation with Tcu 380a Intrauterine Device: A Case Report of 32 Years Old Lady in Gulu Hospital

Francis Pebalo Pebolo¹, Ocaya Anthony²

¹Department of Obstetrics and Gynecology ward Gulu Regional Referral Hospital;

²Department of Anatomy, Gulu University Medical School, Gulu, Uganda.

Abstract:

Introduction: Intrauterine device (IUD) is one of the most frequent methods of modern contraception due to its cost effectiveness and low complication rate. Uterine perforation is among the most serious complication associated with IUD insertion. The incidence of perforation is between 1.3 and 1.6 per 1000 insertion. **Objective:** To describe a case of primary uterine perforation by TCU 380A intra-uterine device. **Method:** We report a case of primary uterine perforation in a 32-year-old para 4 lady. She had TCU 380A intrauterine device inserted for contraception. She had sharp lower abdominal pain during the insertion and presented one month post-insertion with persistent lower abdominal pain and pain and increased frequency of passing urine. **Result:** Ultrasound scan showed an empty endometrial cavity but IUD was noted in right adnexal region. An elective exploratory laparotomy showed IUD embedded into the myometrium just visibly seen in the vesico-uterine peritoneal reflection. **Conclusion:** Uterine perforation by IUD is a rare but potentially dangerous complication of IUD insertion. Health workers should have high index of suspicion for possible uterine perforation and vesicle involvement if a patient presents with history of persistent lower abdominal pain and urinary symptoms.

Key words: Abdominal Pain, Contraception, Intrauterine Devices, Myometrium, Uterine Perforation.

Introduction

Intrauterine device (IUD) is one of the most frequent methods of modern contraception [1,2] due to its cost effectiveness and low complication rate [2]. About 0.5% of women in Uganda are using this contraception method [3]. Uterine perforation is among the most serious complication associated with IUD insertion. The incidence of perforation is between 1.3 and 1.6 per 1000 insertions [1,4] although some studies report higher rates of up to 13

per 1000 insertions [5,6]. Perforation can either be iatrogenic (primary) during the insertion by applied mechanical force or secondary which occurs spontaneously [4] probably because of uterine spasm [5,6]. Risks of perforating the uterus depend on the position of the uterus, insertion technique and the experience of the operator inserting IUD [1]. Up to 15% of the perforation involves adjacent organs notably the bladder, small and large intestines [5].

Corresponding Author: Dr. Pebalo Francis Pebolo
Email: pebalopebolo@gmail.com

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Treatment of uterine perforation by IUD is surgical removal either laparoscopically or by a laparotomy [8,9]. In developed world, laparoscopy is the preferred method of removal and indication for laparotomy includes IUD embedded in the colon, small intestine or when laparoscopic procedure failed [1,10]. In our setting here in Uganda, the only method available is laparotomy although endoscopic method could be attempted for luminal IUD. Careful patient selection and insertion by trained clinician is very important to reduce the risk of perforation [5].

Case Report

A 32 year old para 4 presented to Gulu Regional Referral Hospital, Gynecology Outpatient Department with history of lower abdominal pain, increased frequency of passing urine with dysuria and deep dyspareunia. She had a TCU 380A IUD inserted from a private health unit one month ago. She reported to have felt a sharp lower abdominal pain more on the right side during insertion in which she reported to the operator. Three days later, she developed mucoid blood stain per vaginal discharge on addition to lower abdominal pain which persisted and could not feel the 'thread' in the vagina. She reported these complain to the operator and was prescribed analgesic without pelvic examination.

Examination showed her in fair general condition. Genito-urinary systems examination revealed no thread in the vagina, marked cervical motion tenderness and right iliac fossa tenderness. Other systems were unremarkable. Pelvic ultrasound revealed no IUD in the uterine cavity but was seen in the right adnexial region [Fig.1]. Elective exploratory laparotomy was done, found an IUD perforated the uterus and embedded into the myometrium but just visible in the vesico-uterine peritoneum reflection [Fig.2]. The 'T' bar of the TCU 380A IUD was held by artery forceps and was extracted [Fig.2].



Fig.1: Pelvic ultrasound showing IUD in right adnexial region.

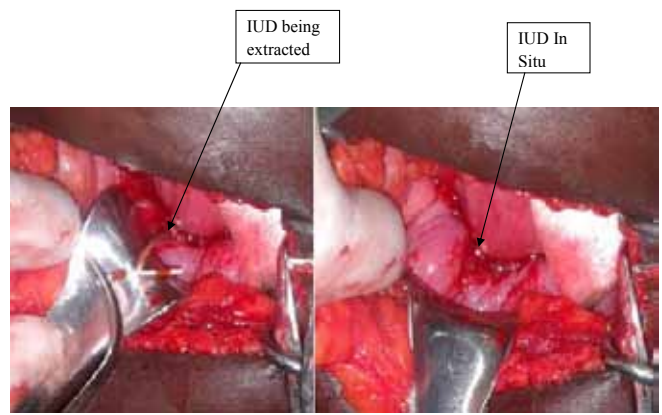


Fig.2: Exploratory laparotomy showing IUD embedded into the myometrium but just visible in the vesico-uterine peritoneum reflection. The 'T' bar was held by artery forceps and was extracted.

The side of the perforation was further assessed for bleeding, and bladder was examined to exclude vesical perforation. Patient had uneventful recovery and was discharge on the second post-operative day.

Discussion

Uterine perforation is among the most serious complication associated with IUD insertion. The incidence of perforation is between 1.3 to 1.6 per 1000 insertion [1,4] as it tends to occur in the immediate post insertion period (primary perforation) [11]. Although symptoms of perforation may be nonspecific, suspicion of perforation should

arise if the patient had a sharp pain during the insertion. This patient had a sharp pain during the time of insertion and the pain persisted for the rest of the one month post insertion period. She also had mucoid bloody per vaginal discharge. This blood could have arisen from the perforated site. The urinary frequency could be because of the bladder irritation by the TCU 380A IUD just embedded behind the bladder [Fig.2]. Lower urinary tract symptoms are common features of uterine perforation and bladder involvement [12,13] and patients who present with this should be investigated for possible migration or perforation [14,15]. History of “No Thread” in the vagina should not be assumed to be ‘fallen’ IUD but should be investigated for possible uterine perforation and/or migration. Ultrasound scan is the simplest, rapid and non-invasive imaging modalities use to assess the position of IUD [5]. CT scan would reveal the exact location of the IUD and the associated complication [6].

Simple plain abdominal radiography may help to detect abdominal TCU 380A IUD. Ultrasound and computed tomography scanning may help to precisely localize migrated IUD devices [16]. This patient underwent abdominal ultrasound scan as it is the simplest, rapid and non-invasive imaging modalities use to assess the position of IUD [5].

Conclusion

Careful patient selection and pelvic assessment before insertion of an IUD may help to minimize this potentially dangerous complication. Health care training in the insertion technique is very important in Ugandan setting as a single complication could turn off thousands of women who might need this method of contraception worsening the contraceptives unmet need.

References

1. Arslan A, Kanat-Pektas M, Yesilyurt H. Colon penetration by a copper intrauterine device: a case report with literature review. *Arch Gynecol Obstet.* 2009;279:395-397.
2. Nouira Y, Rakrouki S, Gargouri M, Fitouri Z, Horchani A. Intravesical migration of an intrauterine contraceptive device complicated by bladder stone: a report of six cases. *International Urogynecology Journal and Pelvic Floor Dysfunction.* 2007;18(5):575-578.
3. Uganda Demographic and health survey (UDHS) 2011. Uganda Bureau of Statistics Kampala, Uganda. Available from: <https://dhsprogram.com/pubs/pdf/FR264/FR264.pdf>. Accessed on June 26, 2015.
4. Baakdah H, Asswad AF, Tulandi T. Sigmoid penetration by an intrauterine device. *J Min Invasive Gyn.* 2005; 12:384.
5. Sharifaghdas F, Beigi FM, Abdi H. Laparoscopic removal of a migrated intrauterine device. *Urol J.* 2007;4:177-179.
6. Sun CC, Chang CC, Yu MH. Far-migrated intra-abdominal intrauterine device with abdominal pain. *Taiwan J Obstet Gynecol.* 2008; 47:244-246.
7. Grimaldi L, De Giorgio F, Andreotta P, D'Alessio MC, Piscicelli C, Pascali VL. Medicolegal aspects of an unusual uterine perforation with multiload-Cu 375R. *Am J Forensic Med Pathol.* 2005; 26:365-366.
8. Heinberg EM, McCoy TW, Pasic R. The perforated intrauterine device: endoscopic retrieval. *JLS.* 2008;12(1):97-100.
9. Silva PD, Larson KM. Laparoscopic removal of a perforated intrauterine device from the perirectal fat. *JLS.* 2000;4(2):159-162.
10. Chi E, Rosenfeld D, Sokol TP. Laparoscopic removal of an intrauterine device perforating

- the sigmoid colon: A case report and review of the literature. *Am Surg.* 2005;71:1055-1057.
11. Heartwell SF, Schlesselman S. Risk of uterine perforation among users of intrauterine devices. *Obstet Gynecol.* 1983;61:31-36.
 12. Ozgur A, Sismanoglu A, Yazici C, Cosar E, Tezen D, Ilker Y. Intravesical stone formation on intrauterine contraceptive device. *International Urology and Nephrology.* 2004;36(3):345-348.
 13. Demirci D, Ekmekcioglu O, Demirtas A, Gulmez I. Bigbladder stones around an intravesical migrated intrauterine device. *International Urology and Nephrology.* 2003;35(4):495-496.
 14. Bera MK, Das CC. Migration of intrauterine copper 7 leading to vesical calculus. *Indian Journal of Surgery.*2009;5:279-281.
 15. Vagholkar S, Vagholkar K. Secondary vesical calculus resulting from migration of an intrauterine contraceptive device. *Case Reports in Obstetrics and Gynecology.* 2012;603193,2012.
 16. Bitterman A, Lefel O, Segev Y, Lavie O. Laparoscopic Removal of an Intrauterine Device Following Colon Perforation. *JSLs.* 2010; 14:456-458.