



Secondary perforation with post placental intra uterine device: A case report

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ABSTRACT

Contraception is an essential component of safe motherhood initiative, especially in countries having high fertility rate. Family planning is key to improved maternal health and provision of quality care in family planning services is critical to support higher levels of contraceptive uptake. Introduction of post-partum IUCD has opened opportunity to popularize its use. Several researches have established the Post-partum insertion of IUCD to be safe and effective contraceptive method for most women [1]. Simplicity of insertion with few contraindications attracts both providers and clients. However, with exponential increase in its use many serious complications associated with the PPIUCD have also been described recently. The incidence of perforation with interval IUCD is between 1.3 and 1.6 per 1000 insertions [2, 9] although some studies report higher rates of up to 13 per 1000 insertions. [2] Perforation can either be iatrogenic (primary) during insertion caused by inappropriate applied mechanical force or secondary which occurs spontaneously causing migration of the device. [3] probably because of uterine spasm [4]. Risks of perforating the uterus depend on the position of the uterus, insertion technique and the experience of the operator inserting IUD. Up to 15% of the perforation involves adjacent organs notably the bladder, small and large intestines [4]. In this report, we present an unusual complication of the IUCD in which the device perforated the uterus with both of its arms.

INTRODUCTION

Contraception is an essential component of safe motherhood initiative, especially in countries having high fertility rate. Family planning is key to improved maternal health and provision of quality care in family planning services is critical to support higher levels of contraceptive uptake. Introduction of post-partum IUCD has opened opportunity to popularize its use. Several researches have established the Post-partum insertion of IUCD to be safe and effective contraceptive method for most women [1]. Simplicity of insertion with few contraindications attracts both providers and clients. However, with exponential increase in its use, many serious complications associated with the PPIUCD have also been described recently. The incidence of perforation with interval IUCD is between 1.3 and 1.6 per 1000 insertions [2, 9] although some studies report higher rates of up to 13 per 1000 insertions. [2] Perforation can either be iatrogenic (primary) during insertion - caused by inappropriate applied mechanical force or secondary which occurs spontaneously causing

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CASE REPORT

Mrs. T S, 23-year-old female para 2, last childbirth was about 5 months back. She was provided post placental postpartum IUCD. She attended local hospital for removal of the IUD for having frequent, irregular, and increasingly painful heavy vaginal bleeding. During interrogation She admits having painful defecation and deep seated dyspareunia for one month. The IUD thread couldn't be found during her follow-up visits. She contacted doctor this time requesting removal for the IUD as the symptoms worsened. Attempts to remove the IUD in the local hospital were unsuccessful for which she was referred to our

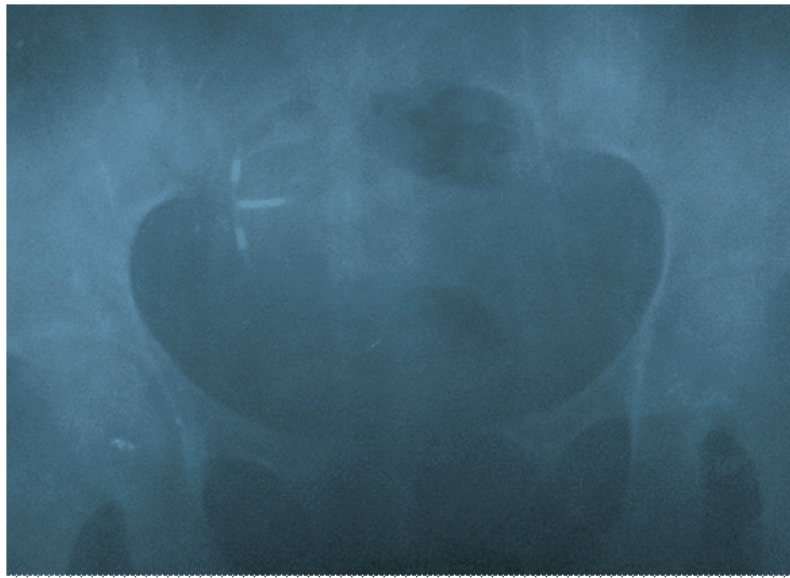
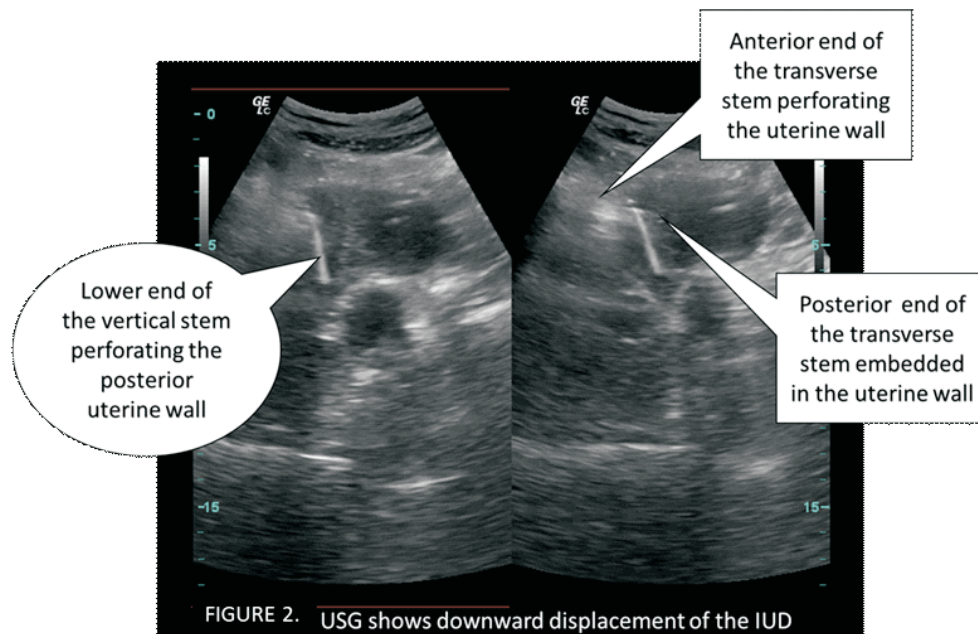


Figure 1:- X – Ray of the pelvis shows displaced IUD.



clinic. Patient had been menstruating regularly for last three months. She had her last menstruation 15 days prior to admission. There was no history of any medical co morbidities. On examination; She was anxious but neither icteric, pale or febrile. Respiratory, cardiovascular and abdominal examinations revealed no abnormalities. On per speculum examination the copper T thread could not be visualized. Pelvic examination revealed severe tenderness over posterior fornix. A working diagnosis of missing string was made. X ray pelvis done at previous institution suggested a displaced copper T. (figure 1). An ultrasound scan confirmed intrauterine but displaced copper T with the vertical arm placed horizontally, lower end of the vertical stem was seen to be seen between left ovary and the posterior uterine wall (figure 2). Findings suggested displaced IUCD with embedment and perforation in to the myometrium. Patient was posted for hysterolaparoscopy to locate and remove the displaced

CuT. As patient insisted on open laparotomy She was posted for an elective exploratory laparotomy. During laparotomy one end of the transverse arm of the copper T was seen protruding through lower segment of the anterior uterine wall on the right side. And the vertical arm protruding through lower posterior uterine wall with string attached to it, further it was found indenting rectum without injuring it (figure 3). Disposition of the IUD is illustrated in figure 4. IUD was removed by pulling the lower end of the IUD protruding through the posterior rent. Both the rents were repaired. Post-operative period was uneventful; she was discharged with the contraception cover (OCP).

DISCUSSION

Such perforation was reported by Raul Mederos et al where perforation into the sigmoid colon after a period of 10 years in situ was described [5]. Francis PebaloPebolo described a case of

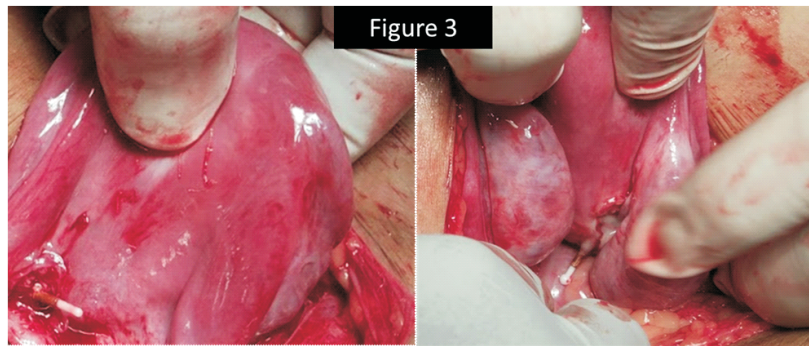


Image 3A shows one end of the transverse arm perforating lower anterior uterine wall

Image 3B shows other end of the transverse arm perforating lower posterior uterine wall

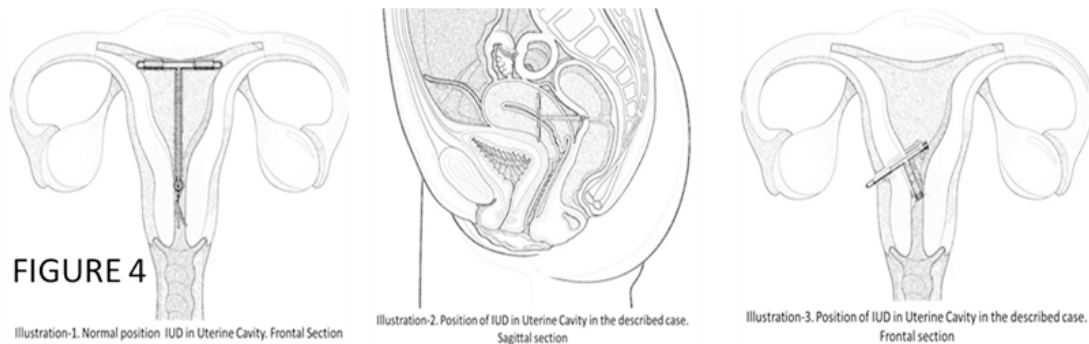


FIGURE 4

Illustration-1. Normal position IUD in Uterine Cavity. Frontal Section

Illustration-2. Position of IUD in Uterine Cavity in the described case. Sagittal section

Illustration-3. Position of IUD in Uterine Cavity in the described case. Frontal section

primary perforation and vivid description of causation of secondary perforation [6]. R. Vilallonga et al described asymptomatic migration of IUD to the sigmoid colon lumen as a result of secondary perforation [7]. Perforations with IUD are usually iatrogenic (primary), as a result of inappropriate mechanical force applied during insertion or failure to adhere to the principles. Secondary perforation occurs spontaneously when an IUD which is known to be in situ for some time after insertion, but is later found to be in an ectopic position probably because of uterine contraction [8] in other words perforation occurring with intrauterine location of the IUD. Factors favoring perforation of the uterus are 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 [8]. IUCD perforation can occur with the string still visible per vaginum has been collaborated in another report; [8]. In this report, we present an unusual complication of the IUCD in which the device perforated the uterus at two places; One each with ends of both vertical and transverse arms.

Factors for Secondary perforation are many. Design of the IUD is important, straight arm devices like CuT 380A and Progestasert usually erode, penetrate and perforate the uterine wall. The IUDs conforming shape and size of the uterine cavity may lower the risk of perforation [9]. Tone of the uterus, position of the IUD and angulation at utero-cervical region also contribute to secondary perforation. Perforation has also been reported with visible string at cervix [10] hence simple string visibility can't rule out displacement and perforation.

CONCLUSION

Severe complications like perforation have been described

recently with post-partum IUCD. It, in turn may influence the acceptance by the clients. In this particular case improper placement of the IUD far below the fundus at the time of insertion and subsequent uterine contraction during puerperium might have favored perforations at the point of contact of the IUCD arms.

Efforts should be directed towards minimizing risk of perforation by

- 1: -Proper designing of the IUD so as to fit the uterine cavity.
- 2: -Placement of the IUD at the fundus to prevent downward displacement.
- 3: -Timely removal of IUD if associated with prolonged pain and bleeding on suspicion of embedment.

Ensured insurance coverage for complication management would improve client satisfaction and acceptance. Routine sonographic examination at three months and later of all iucd users having painful heavy bleeding will be useful in confirming position of the IUD which would facilitate early management of displacement and prevent perforation.

REFERENCES

1. 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 July 18, 2016.
2. Janina Kaislasuo, SatuSuhonen, Mika Gissler, PekkaLahteenmaki and OskariHeikinheimo. Uterine perforation caused by intrauterine devices: clinical course and treatment. Human Reproduction, Vol.28, No.6 pp.

15461551, 2013

3. SU Mbamara, IO Omojuwa, An Unusual Presentation of Perforated Intrauterine Contraceptive Device: *Ann Med Health Sci Res.* 2013 Apr-Jun; 3(2): 274276.
4. Goldstuck ND. IUD fracture mechanism. *Contraception.* 2014; 89:328.
5. Raul Mederos, Lynda Humaran, Donald Minervini, Surgical removal of an intrauterine device perforating the sigmoid colon: A case report: *International Journal of Surgery* (2008) 6, e60-e62.
6. Francis PebaloPebolo, Ocaya Anthony, Primary Uterine Perforation with Tcu 380a Intrauterine Device: A Case Report of 32 Years Old Lady in Gulu Hospital: <http://www.casereports.in/id=514> Accessed on 11/4/2016 9:47 PM.
7. Vilallonga, N. Rodriguez, M. Vilchez, M. Armengol, Translocation of an Intrauterine Contraceptive Device: Incidental Finding in the Recto sigmoid Colon, Hindawi Publishing Corporation, Obstetrics and Gynecology International Volume 2010, Article ID 404160, 2 pages doi:10.1155/2010/404160
8. Trussell J, Hatcher RA, Nelson AL, Cates W, Kowal D, Policar M. *Contraceptive Technology: Twentieth Revised Edition.* New York NY: Ardent Media, 2011.
9. Wildemeersch D. IUD/IUS designs that do not fit may significantly contribute to early discontinuation a commentary. *Eur J Contracept Reprod Health Care.* 2011; 16:135141
10. SU Mbamara, IO Omojuwa, An Unusual Presentation of Perforated Intrauterine Contraceptive Device: *Ann Med Health Sci Res.* 2013 Apr-Jun; 3(2): 274276.