



Short Communication

'Lost string' in immediate postpartum period iucd insertion— a novel technique for not losing it

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ABSTRACT

Immediate postpartum IUCD is always a challenge even for an expert obstetrician. The timing of insertion and technique of placement is very important in order to prevent complications. Uterine perforation is one of the complications which may occur if IUCD is not properly placed. We hereby advocate certain safety methods which can prevent chances of uterine perforation. If it happens, it can be detected at an earliest. We also suggest to revise the lost string protocol.

Keywords: Immediate Postpartum IUCD, uterine perforation, Lost string

INTRODUCTION

IUCD is the commonest method of contraception in developing countries. It has no effect on quality or composition of breast milk, hence can be used as postpartum contraceptive effectively (Bhalerao and Purandare, 1989).

An immediate postpartum IUCD (PPI) is most often advocated by various authors but timing and method of insertion has a significant role. Literature documents insertion of PPI immediately within 10 minutes of placental delivery, after 6 weeks post-delivery or at a postpartum follow-up visit (Barsaul et al., 2003).

Ultrasound is used to document the presence and position of an IUCD within the uterus when it is ambiguously placed. A highly echogenic linear structure, with a much greater echogenicity than the normal endometrium, is characteristic of an IUCD. The sonographic appearance of an IUCD is determined by its shape and composition. Most of modern IUCDs are shaped like a "7" or a "T." Intrauterine contraceptive devices are made of a combination of plastic and metal (copper). The metal causes a "reverberation artifact," a series of parallel lines that become progressively weaker posteriorly, when the IUCD is parallel to the ultrasound beam. Plastic tubing is displayed as two parallel lines representing an entrance and an exit shadow. A normally positioned IUCD lies in the midline of the endometrial canal, equidistant from the uterine margins.

Intrauterine contraceptive device thread is an

Important component of IUCD to monitor and remove IUCD. If somehow this string is lost or misplaced, it becomes an alarming situation and patient examination becomes absolutely mandatory. The primary diagnoses of a "lost string" include:

- 1) IUCD in situ
- 2) Unrecognized expulsion
- 3) Perforation of the uterus.
- 4) Rare possibilities include: 1) fragmentation of the IUCD with expulsion of the fragment bearing the string, and 2) migration of a linear IUCD into the uterotubal junction (Guillebaud, 1980).

Patients with misplaced IUCDs may present with pregnancy, "lost string," pelvic bleeding, or vaginal pain, or may remain asymptomatic for years. Approximately 80% of misplaced IUCDs are found within the uterine cavity, 15% are found in the cervical canal, and 5% cause perforation of uterus (Guillebaud, 1980).

Missing string is the first sign of perforation in approximately 80% of cases after IUCD insertion. (Xu et al., 1996). The incidence of uterine perforation, a complication of IUCD placement, is as high as 2.2 per 1000 insertions (Heinonen et al., 1984).

Here in our tertiary institution, after experience of over 29 cases of immediate PPI, it was observed that utmost vigilance, care and precautions are required at insertion time with specific techniques. Most often, there is lost string when IUCD is inserted in enlarged uterus in

Immediate postpartum period. The uterus becomes involuted and it becomes pelvic organ in next 2 weeks and it behaves like non-pregnant uterus. When PPI is inserted immediately, enlarged uterus is most often responsible for loss of string and this finding is well supported by the observation in our 26 patients out of total 29 patients (approx. 89%). The manufactured IUCD have shorter (11 cm) thread lengths that cause problems in visibility of string in postpartum uterus thus causes panic situation for obstetrician and the patient in initial postpartum days.

To combat this problem, we increased the length of string by knotting the free end of IUCD thread with 2'0 proline suture and then IUCD was inserted. The thread came outside the external os and became visible in all patients with this modification. After 1—2 weeks, the uterus became involuted and thread started coming out thus increased length outside the os. It was then cut safely and immediately confirmation of IUCD placement was done on ultrasonography.

Interestingly, the total length of IUCD from uterine fund us to external os was measured in all studied patients and it was concluded that the thread becomes visible outside only when the length of thread is around 16 ± 2 cm. This length includes 2 cm of thread visible outside after cutting of the rest. This may be attributed to the enlarged uterus even if it is correctly placed with conventional IUCD. Ultrasonography was performed in all patients immediately after 2 hours of insertion of IUCD which revealed correct placement in all patients.

Visibility of string is definitely helpful in ensuring that the IUCD is correctly placed. The panic of lost string can definitely be avoided by such a simple knotting method

technique. The rationale of choosing proline for this innovation is because of less chances of infection with proline.

With our experience of 29 cases of vaginal deliveries, it is hereby suggested that either the IUCD should be manufactured with inbuilt increased string length (approx.18 cm) or the string can be knotted with proline 2"0 immediately on - table when IUCD is planned for insertion in postpartum period. Ultrasound can be done immediately for confirmation further and this helps in decreasing the incidence of uterine perforation. This method can also be included in management of "lost string" protocol to avoid exhaustive efforts of obstetricians when string is not visible in immediate postpartum IUCD insertion. This can also avoid panic in patients who are counselled to feel the thread daily in order to avoid complications and their timely detection. A further study is required to observe this modification more keenly.

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How to cite this article: Grover N and Singh M (2014). 'Lost string' in immediate postpartum period iucd insertion— a novel technique for not losing it. *J. Res. Nurs. Midwifery* 3(6):112-113