

A Copper-T IUD Displaced in the Appendix Vermiformis

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Notes from My Visits to CELPA Mission Hospital: In DR Congo

“On Nov 11, 2013 a 34-year old woman, para 3, demands having her IUD removed because she wants more children. The IUD had been inserted 3 years ago; 6 weeks post partum, by a nurse. The procedure goes apparently uncomplicated. The woman was lactating. Later, she has had regular bleedings, but some dysmenorrhoea. At gynaecological examination no IUD thread is found. Uterus is anteverted. Vaginal ultrasound shows an intramural IUD in the fundus uteri, and an ill-defined infiltrate above the uterus. No attempt of removal the vaginal way is attempted. A laparotomy is performed through spinal anaesthesia. (Laparoscopy was not available at the time). Appendix is found adherent to fundus uteri; but both adnexa (Fallopian tubes and ovaries) were normal. There seemed to be no PID-sequels. During deliberation of appendix, one finds the copper-T IUD going through the fundus uteri and into the appendix – the stem being situated in the uterine wall and both arms extended in the cavity of appendix. The adhesions to the uterus could be loosened easily, and appendix with the IUD in place removed (**Figure 1**). A minor hole in the fundus was left unattached (no suturing was performed in order to avoid further adhesions), and no antibiotics given”. The postoperative course was uneventful.



Figure 1: The removed appendix with a copper-T device *in situ* is shown. The stem part (here pointing upwards) was removed from the uterine wall, while the transverse ‘arms’ remain in the cavity of the *appendix vermiformis*. Signs of loosened adhesions are seen.

I Saw the Same Woman Two Years Later (Oct 28, 2015)

“Her only problem now is persistent infertility. Her bleedings are normal and regular, and she is married to the same man. Vaginal ultrasound shows a normal-sized, right ovary fixed to the fundus uteri, other vice the examination is normal. She refuses a new operation.”

Comments

IUDs of various types are popular contraceptive means, and are considered especially suitable in low-resource settings [1,2]. Uterine perforations are rare: about 1 in 1000 and these accidents occur almost exclusively during the insertion procedure [3]. At Aker University hospital, Oslo, we found that all of 14 perforations had occurred at the time of IUD-insertion, taking place 6-16 weeks post partum. Median delay until diagnosis was 12 months, and half of the detections were made because of pregnancy [4]. In the post partum period, uterus may be softer and smaller than expected. The most important risk factors for perforations are: insufficient experience of the operator, flexed uterus, insertion post partum, primiparity, and possibly lactation [1].

IUDs in relation to appendix or appendicitis have been described for copper-7 and Lippes loop [5,6]. The case reported here, is probably the first one where a copper-T is involved. It is unclear how it could enter the appendix. Most probably, this occurred during insertion. Once being in the abdominal cavity, it is difficult to imagine how the IUD could find its way to appendix, especially when the arms are already extended. In the present case, therefore, the appendix must have been fixed to the uterus during insertion of the device. However, there were no signs or history of a previous appendicitis. Only moderate amounts of adhesions between uterus and appendix were found perioperatively. These adhesions could have been due to an earlier (sub clinical) appendicitis. The findings of IUD-arms extended in the appendix, without other holes into its cavity, strongly counts for a displacement during insertion. Concerning risks for appendix displacement, the size and position of the vermiform appendix and its lumen might be of importance [7].

After insertion, ultrasound is useful to confirm the right position of the IUD. Localisation of a displaced IUD is, however, often missed; and radiological methods (CT scans or MRI) may be necessary. Surgery (laparotomy or preferably laparoscopic operation) is the recommended treatment. Vaginal extraction of a partially perforating IUD might provoke damage. If done, involvement of other pelvic organs must first be excluded.

Conclusion

This case presents several of the well-known risk factors for uterine perforation: insertion in the post partum period, lactation, anteversion uteri, and an inadequately experienced inserter. A displacement to the vermiform appendix is very rare, and the mechanism uncertain. The case further shows that such a displacement of IUD might be asymptomatic.

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