RETAINED GRAEFENBERG RING INTRAUTERINE DEVICE MIMICKING FRACTURED LIPPES LOOP *IN-UTERO*

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SUMMARY

A retained Graefenberg ring intrauterine contraceptive device which looked like a fractured Lippes loop on pelvic radiography is presented, and its management outlined.

INTRODUCTION

The Graefenberg ring is an intrauterine device (IUCD) made of silver wire which was used largely in Europe 40 – 50 years ago. With increasingly widespread use of copper-bearing and other medicated IUCDs in the last two decades, nowadays it is very rare to encounter such a device.

CASE REPORT

A 52-year-old Chinese para 6 presented with a three-week history of menorrhagia. There had been no problems with her menses in the preceding months and she had not been on hormonal therapy. In 1956, about 20 years earlier, she had had a ring-like IUCD inserted by a general practitioner. Three years later, she had a miscarriage at three months' gestation and was told that the IUCD had probably dropped out; however, no investigations were done. She became pregnant again in 1961 and delivered normally, after which her husband had a vasectomy. There was no other significant past history except for a diagnostic curettage for abnormal uterine bleeding in 1970.

She was not anaemic and systemic examination did not reveal any abnormality. The uterus was normal-sized with no adnexal lesions palpable; the cervix was healthy but there was fresh blood oozing through the os. No IUCD threads were visible.

In view of the previous history, an ultrasound examination of the pelvis was done, which showed strong echoes from within the uterine cavity. An X-ray picture (Fig. 1) revealed a linear, radio-opaque foreign body in the pelvis which looked like part of a fractured Lippes loop.[1] Diagnostic curettage and removal of the foreign body was undertaken under general anaesthesia. Attempts at grasping the foreign body with polyp forceps resulted in a centimetre piece of discoloured, yellowish thread at the external os, but this snapped on traction. After uterine curettage, the foreign body was finally retrieved with difficulty and in fragments; it was made up of coils of wire which had been straightened out by the force needed to retrieve it (Fig. 2).

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Histopathological examination of the endometrial curettings showed cystic glanduler hyperplasia with no evidence of malignancy or inflammation. The patient has been followed up for six months without recurrence of abnormal bleeding.

DISCUSSION

There are a variety of methods for extracting an IUCD with missing tails.[2] In our experience, most of these cases are due to retracted tails rather than uterine perforation, and it is easy to retrieve such devices using the Karman suction cannula.[2] However, this method was considered unsuitable in this woman as embedding of the IUCD was anticipated. The consequences of IUCD embedment[2] were seen in this case: contraceptive efficacy is reduced, and retrieval of the device may be problematic. The force required to extract this device and the straightening out of its coils in the process indicate that there could have been a type 1–2 uterine perforation[2] whereby one end is buried in the myometrium.

Fig. 1 Pelvic radiograph showing linear foreign body.

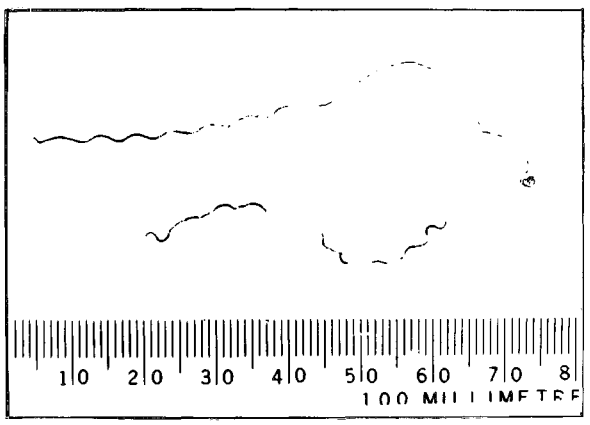

Fig. 2 Fragments of silver ring removed with coils still evident at extremity of largest fragment.

Fracture of the Lippes loop has been described, possibly arising from defective manufacture and attempts at removing the IUCD.[1] In retrospect, closer scrutiny of the radiograph showed coils of wire making up the linear opacity in the pelvis. The Graefenberg ring had probably been broken and splayed out during previous uterine curettage.

The histological finding of endometrial cystic glandular hyperplasia is consistent with anovulatory perimenopausal bleeding. Prolonged use of polyethylene and stainless steel devices may cause epidermoid carcinoma of the uterus in rats but the relevance of this finding to the human model is doubtful and speculative.[3] In spite of case reports of endometrial malignancy associated with silver and polyethylene IUCDs, there is no evidence that the IUCD is causative. However, though bleeding disturbances are frequently associated with IUCD-use, it is also a common symptom of genital tract malignancy; this possibility must always be considered.

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