

## EXTRA-UTERINE DISPLACEMENT OF LIPPES LOOP

by

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Intrauterine contraceptive devices have been widely used in recent years throughout the world and they have been proved to be safe, effective and acceptable. Lippes loop has been used on a mass scale in India and since July 1965 nearly 3 million loops have been introduced.

Uterine perforation or extra-uterine displacement of Lippes loop, though unusual and rare, is a very serious complication. The other types of intrauterine devices have had their problems and complications. Review of the literature made by Burnhill and Birnberg (1967) and cases presented to the National Committee on Maternal Health report 28 cases of perforations of the uterus in a total of 16,338 first insertions of IUCD after confinement, an incidence of 1.7 perforations per 1,000 insertions. Twenty of the perforations followed the insertion of a Birnberg bow. Sixteen of these occurred in patients less than 12 weeks post-partum. The rate of perforations for bows was 5.1 per 1,000 insertions, for steel ring 1 per 1,000, for spirals and for Lippes loop 0.6 per 1,000 insertions. Walmiki *et al* (1967) have reported three cases of Lippes loop per-

forations in 50,000 insertions. Gadgil and Anjaneyulu (1967) have reported a case where the loop had partially perforated through the fundus of the uterus; at laparotomy, the loop could be palpated on the anterior wall of the uterus and seen as a white structure visualised just below the uterine peritoneum. In view of the mass scale insertions of loops, the perforations should be more than what has been reported in the literature so far. It is essential that these extrauterine displacements are diagnosed as early as possible and treated effectively. The purpose of this paper is to direct attention to this problem by discussing two cases referred to Christian Medical College and Hospital for diagnosis and treatment of extrauterine displacement of Lippes loop.

*Diagnosis:* Whenever the nylon thread is not visualised at the os, or the IUCD is not easily felt on sounding the uterus, displacement of IUCD should be suspected. To confirm the diagnosis x-rays are necessary. Whenever the loop is situated away from the midline and lying transversely, the diagnosis is more in favour of displacement. The most informative picture will be when the sound is placed in the uterine cavity and a lateral view of the pelvis is taken. This view will show the sound and the loop in different places. The other method is to take an x-ray with

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the contrast medium in uterus which will clearly show the two different shadows of the uterus and the loop.

#### Case I

Mrs. K., aged 19 years, was admitted to Christian Medical College Hospital on 17th January 1968 with a history of the IUCD insertion two months postpartum one year ago. She gave a history of cramp-like abdominal pain and vomiting on and off for two months prior to admission.

**Obstetric history:** Married for four years, Para 2, last childbirth 1 year and 2 months ago.

**Menstrual history:** Periods prior to her last pregnancy were regular, 4/30; no dysmenorrhoea; has not menstruated since last childbirth. Patient still feeding the baby.

Laboratory investigation revealed haemoglobin 12 g; White cell count and urine analysis did not show any abnormality. Vaginal examination showed a normal sized anteverted uterus, fornices free, cervix healthy, nylon thread not seen.

**X-ray abdomen:** Plain x-ray of the pelvis showed the loop lying transversely in the pelvis as noticed in Figs. 1 & 2 which showed the loop lying anteriorly above the level of the symphysis pubis and anterior to the bladder region. To confirm the extra-uterine displacement of the loop, another x-ray was taken with contrast medium within the uterus. Figure 3 shows clearly the loop outside the uterine cavity.

**Operative Procedure:** Exploratory laparotomy was done under general anaesthesia. The Lippes loop, size 30 mm., was found entangled and embedded in the greater omentum. The loop along with a piece of omentum was excised as shown in Figure 4.

A small dimple of about 2 mm. was seen at the right cornu of the uterus. There was no scarring or recent sign of trauma. Post-operative period was uneventful. Patient was discharged on the 10th post-operative day.

#### Case II

Mrs. S., aged 20 years, was admitted to Christian Medical College Hospital on 15th

March 1968 with a history of IUCD insertion two months postpartum on 30th June 1967. There was no pain or any difficulty at the time of insertion. Patient was comfortable for the first three months but later on she had dyspareunia and also the husband started complaining of an uncomfortable feeling of the IUCD at the time of intercourse.

**Obstetric history:** Married for seven years, para 3, last childbirth 8 months ago.

**Menstrual history:** 4-5/30, regular, painless, normal flow, no periods since last childbirth; still feeding the baby.

General condition of the patient was good on admission. Laboratory findings on blood and urine were within normal limits. Pelvic examination showed cervix normal, uterus retroverted, mobile, normal in size, fornices free. IUCD was easily felt in the pouch of Douglas.

X-ray abdomen shows the uterine sound in the uterine cavity and posterior displacement of the IUCD (Fig. 5).

Figs. 6 and 7 show the antero-posterior and lateral views with the uterine cavity filled with a contrast medium.

In the antero-posterior view, the loop is seen with the tail end upwards and on the left side, the fallopian tube is filled with the dye. The lateral view again shows the IUCD placed posterior to the uterus.

**Operative procedure:** Under general anaesthesia removal of the IUCD was attempted on 18th of March 1968. Since the loop was easily palpable, it was decided to make an attempt at removal through a posterior colpotomy incision. A transverse incision was made half an inch below the posterior lip of the cervix and the pouch of Douglas opened. The IUCD was easily accessible; the cranial end of the loop was lying freely and a few flimsy adhesions were present at the tail end of the loop. The adhesions were easily removed under vision and the loop taken out.

Sterilisation was done by Pomeroy's method through the same incision and the wound sutured in layers using No. 1 catgut. Fig. 8 shows the incision and the IUCD being removed. Patient was discharged on the seventh post-operative day in good condition.

### Discussion

Extrauterine displacement of the device can be due to any of the following reasons: At the time of insertion the uterus may be perforated and the device deposited in the peritoneal cavity completely or partially. Alternatively, the displacement could occur gradually due to trauma of the inner layers of the uterine musculature at the time of insertion or the gradual displacement can occur through a pre-existing perforation or dehiscence of the uterine musculature during labour and delivery.

Among the hypotheses suggested, the first two may be more liable to occur when there is an anterior or posterior displacement of the uterus which has not been recognised by the person inserting the loop. Perforation or trauma can also occur easily in the early postpartum period or during lactational amenorrhoea when the uterus tends to be more soft and friable. Macfarlan (1966) has reported perforation of the uterus of an amenorrhoeic lactating woman during the insertion of the bow.

In any given case of extrauterine displacement, the actual cause will be a matter of conjecture. However, in many instances, it is more than likely due to one of the reasons stated above. Both our cases had lactational amenorrhoea and insertions were done 8 weeks postpartum. Both the patients had normal deliveries with no complications. In the second case the position of the uterus was retroverted and the doctor reported to us that a tenaculum was not used at the time of insertion. Except for very flimsy adhesions at the tail end, the

loop was lying free in the pouch of Douglas. It is more than likely, therefore, that the perforation of the uterus took place at the time of insertion. In the first case, as seen in figure 4, the IUCD is completely embedded in the omentum. This makes one believe that the displacement could have been a gradual one.

It should be possible to avoid these displacements and their serious complications by recognising a few points. Firstly, the person doing the insertion should be aware of the anatomy and variations in the position of the uterus. It is best to use the tenaculum where the uterus is acutely anteflexed or retroflexed. If it becomes necessary to force the loop out through the introducer, or if the patient complains of severe pain, it may be safer to abandon the procedure. Unsuccessful attempts at removal of the device where the nylon thread is not seen at the os may also lead to perforation. Removal of extrauterine IUCD can be done by laparotomy which is safest and gives an opportunity to look for adhesions, partial extrusion through the uterus or any evidence of perforation or scarring on the uterus. When the IUCD is very low down in the pouch of Douglas, and is easily felt per vaginam, one could remove it with a colpotomy incision as in our second case. The disadvantage of this procedure is that one cannot visualise the site of perforation if present, and an attempt to remove the adhesions between the loop and the bowel may cause injury to the latter during blind dissection.

### Summary

1. Attention is directed towards

the problem of extrauterine displacement of Lippes loop.

2. Two cases of extrauterine displacement of Lippes loop, introduced 8 weeks postpartum in lactating amenorrhoeic mothers, are presented, describing their diagnosis and treatment.

3. Radiological diagnosis is essential before attempts are made to remove the device by surgery.

4. If insertions are done by one who is aware of the anatomy of the pelvic organs and its variations, then careful and gentle insertion of the IUCD with the use of a tenaculum

would avoid most of the uterine perforations.

References

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Figs. on Art Paper VI and VII

Investigation of the case showed that the patient had been using the Lippes loop for 8 weeks. She had no menstruation since the insertion of the device. The patient was 35 years old and had two children. She had no other medical history. The patient was admitted to the hospital on 11-8-66. The physical examination was normal. The abdominal examination showed a soft, non-tender abdomen. The pelvic examination showed a normal uterus and ovaries. The Lippes loop was palpable in the upper part of the uterus. The patient was treated with antibiotics and painkillers. The Lippes loop was removed by surgery. The patient was discharged on 18-8-66. The patient has no further problems.

History of present illness: The patient had a history of irregular menstruation since the insertion of the Lippes loop. She had no other symptoms. The patient was admitted to the hospital on 11-8-66. The physical examination was normal. The abdominal examination showed a soft, non-tender abdomen. The pelvic examination showed a normal uterus and ovaries. The Lippes loop was palpable in the upper part of the uterus. The patient was treated with antibiotics and painkillers. The Lippes loop was removed by surgery. The patient was discharged on 18-8-66. The patient has no further problems.

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