

COMPLICATIONS FOLLOWING USE OF LIPPES' LOOP

by

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Introduction

Among all the methods of family planning, the intrauterine device (IUD) has been the topic of much discussion. Lippes' loop has received, in its short span in our country, a most cordial reception followed by lukewarm response from the medical profession as well as the women. In very few innovations in medicine has the pendulum swung to two extremes in such a short time as in the case of Lippes' loop. The reports of an increasing removal rate and a diminishing insertion rate for Lippes' loop from different parts of India support the above remark.

It is generally felt that the time is ripe now to re-evaluate the status of Lippes' loop. The initial wave of

over-enthusiasm for the loop should give place to mature consideration and prudent assessment of its real indications. The study of its complications would naturally be the first step in this direction. This paper analyses the complications following loop insertion.

Material and methods

This is a critical analysis of 120 cases of complications occurring in 475 women who had been fitted with a Lippes' loop (30 mm. size) from 1st January 1965 to 31st May 1967 at the family planning clinic of S. S. G. Hospital, Baroda. We have also included another 100 cases of loop insertions with complications who were referred to us from peripheral clinics. Thus, 220 cases of complications with the loop are analysed.

Every case was carefully interrogated and a detailed history was taken. She was then subjected to a careful and thorough clinical examination. X-ray of the pelvis, a cervical swab and an endometrial biopsy were taken in a few cases.

All these (220) cases wanted removal of the loop for one reason or the other. It is evident from Table 1

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TABLE I
Indications for removal of loop

Indications.	No. of cases.
Menorrhagia & irregular vaginal bleeding	115
Backache	41
Leucorrhoea	35
Desired more children	25
Desired either tubectomy or vasectomy	21
False beliefs	16
Amenorrhoea	11
Lower abdominal pain	10
Objection by husband	6
Dysmenorrhoea	3
Scanty periods	5

that 115 cases presented with vaginal bleeding or menorrhagia. False beliefs and objection to the loop by the husband are some of the indications for removal of the loop. Five of the women who wanted removal of the loop were already pregnant.

All were parous women with the exception of 3 nulliparous cases who did not wish to conceive as they were studying. Of the parous cases, 33 were primiparous and the remaining were multiparous. The youngest woman was 18 years old and the oldest was 41 years old. One hundred and ninety-nine belonged to 20 to 35 years age group. The menstrual history revealed that 115 cases had menorrhagia, 94 had normal menstruation, 6 had dysmenorrhoea and scanty periods and 5 had lactational amenorrhoea.

On routine gynaecological examination, vaginitis, erosion of the cervix and a bulky uterus were encountered in 3, 31 and 12 cases respectively. Of the 12 cases having bulky uteri, five were pregnant. Four of these cases have delivered healthy babies at term followed by the expulsion of the loop.

In 21 cases, x-ray of the pelvis was required to confirm the presence of the loop as the thread was not seen. The suspicion of intraperitoneal displacement was confirmed by x-ray, in two cases with uterine sound in the uterine cavity, in antero-posterior and lateral views of the pelvis. Endometrial biopsies in 22 cases revealed chronic endometritis in 5 and normal endometrium in the remaining cases. A cervical swab was taken and cultured in 11 cases. It revealed Gram positive cocci in 5, Gram positive bacilli in 1 and no organisms in the remaining cases. Of the 6 positive cases two complained of leucorrhoea and the rest did not have any symptoms.

The treatment accorded and the difficulties encountered in removal of the loop are shown in Table 2. Only

TABLE II
Management and methods of removal

No.	Mode of Removal.	No. of cases.
1.	Per vaginam	185
2.	Abdominal exploration	6
3.	Miscellaneous :—	
	Convinced to continue the loop	24
	Expelled after delivery	4
	Pulled out later by the patient	1
	Total	220

24 of these cases agreed to continue using the loop as a contraceptive device. The loop could be removed easily per vaginam in 185 cases either by a thin, long artery forceps, sinus forceps or Grafenberg ring extractor. Seven cases required dilatation of the cervix under anaesthesia. Abdominal exploration was required in 6 cases. The loops were intraperitoneal in 2

cases without any signs of uterine perforation. In one case, there was a healed scar on the anterior surface of the uterus. In the other two cases intramural and intra-endometrial embedding caused difficulty in removal of the loop per vaginam. These were removed by hysterotomy. One case presented as a ruptured ectopic gestation in which a right salpingectomy was done. The loop was removed after 2 months and her husband underwent vasectomy.

Discussion

It was found that 25 per cent of the clinic cases did not tolerate the loop for various reasons. The commonest symptom was abnormal vaginal bleeding in 57.5 per cent of the cases. Similar findings have been reported by Das, Nawal Kishore, and Dhall *et al.* Israel *et al.* report that the presence of the loop causes endometrial oedema and venous congestion, resulting in haemorrhages in the endometrium. Incidence of irregular bleeding with the loop varies from 3 to 38 per cent as reported by various workers. The various conservative measures to control bleeding are unlikely to succeed as the primary cause is disturbed endometrial vascularity. If the woman develops bleeding per vaginam, which is not controlled, it is desirable to remove the loop and advise other methods of contraception.

Leucorrhoea and backache may be due to chronic cervicitis or vaginitis. It is likely that these symptoms may be coincidental. Five cases of leucorrhoea were caused by trichomonas vaginitis, treatment of which helped the patient to continue IUD. Symp-

tomatic cervical erosion should be treated first before introducing the loop. However, asymptomatic erosion is not a contraindication for the insertion of the loop. Bacteriological studies in 11 cases showed that in two of these cases, Gram + ve cocci were responsible for chronic cervical infection. They were treated with penicillin injections for 5 days and were relieved of their symptoms.

In 22 endometrial biopsies, 5 showed evidence of chronic endometritis. There were 115 cases of menorrhagia which gives an incidence of 4.3 per cent. The incidence of chronic endometritis without loop varies from 1.4 to 11 per cent (Joshi, Sutherland). Unless more endometrial biopsies are studied, one cannot implicate the loop as a major cause of chronic endometritis.

X-rays were necessary in 21 cases, because the thread was not seen at the cervix. Antero-posterior and lateral views, with the intra-uterine sound outlining the uterine cavity greatly aid in diagnosing an intraperitoneal loop (Walmiki *et al.*, Lehfeldt). This is well illustrated in photographs 1 and 2. Similarly, in photographs 3 and 4, the loop is anterior to the sound in lateral view of pelvis with a retroverted uterus indicating intramural embedding. In addition to various views suggested for intraperitoneal displacement, (Walmiki *et al.*), slow uterine perforation by pressure necrosis, due to the tip of the loop, appears to be a more probable cause of intra-peritoneal displacement (Clarke & Lehfeldt, Nakamoto). Associated ectopic (tubal) pregnancy has been reported by Ajinkya and Zerzavy. One of our cases also

had an ectopic, but the causative role played by the loop is not known.

The incidence of normal pregnancy with the loop, as reported by Lehfeldt *et al* and Lippes', is 1.4 to 4.8 per cent. It appears that the risk of pregnancy almost equals the failure rate of sterilization. Therefore, if loop is suitable otherwise, then for this complication loop should not be blamed.

We feel that the loop displaced into the peritoneal cavity should be removed. Lehfeldt advises insertion of another loop in the uterus and allowing the loop to remain in the peritoneal cavity. Thambu and Seward *et al* have reported bowel obstructions following peritoneal displacement of the loop. This supports the view that loop displaced into the peritoneum is not without complications and so it should be removed.

Summary

There were 220 cases of insertion of IUD who came with various symptoms for removal of the loop. Abnormal vaginal bleeding was present in 57.5 per cent of cases. When the nylon thread is not seen and few attempts to remove a loop from below have failed, then it is better to x-ray the pelvis in anteroposterior and lateral positions with a sound in the uterine cavity. By this way, in two cases, peritoneal displacement of the loop could be diagnosed before laparotomy. Intramural displacement also could be suspected. The removal of the loop was easy in 80 per cent of the cases. Laparotomy was mandatory in 2.72 per cent of cases. About 11 per cent of these cases could be convinced to continue the loop as I.U.C.D.

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