

EARLY POST-PARTUM INSERTION OF MULTILOAD Cu 250 AND ITS COMPARISON WITH Cu T-200 AND LIPPES LOOP

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Early post-partum insertion of an intra-uterine contraceptive device is a most significant advance in providing family planning services to large number of women who deliver in a hospital but find inconvenient to return to the hospital in post-natal clinics.

The duration of post-partum amenorrhoea is related to a period of full lactation but ovulation is not completely absent; 2.9 to 8.6 per cent pregnancies have been reported during this period (WHO 1976). So it would be advisable to initiate the method of contraception before discharge from the hospital after delivery.

The present study is to establish the time phased acceptability, safety and efficacy of "NEWER ML Cu 250" in early post-partum period as compared to Cu T-200 and Lippes Loop.

Material and Methods

Four hundred fifty (450) cases selected from the State Zenana Hospital (Department of Obstetrics and Gynaec.) S.M.S. Medical College, Jaipur. The patients taken in this study were volunteers from our postnatal wards. ML Cu-250 was in-

serted in 150 cases and was compared with similar number of cases of Cu T-200 and Lippes Loop.

Early post-partum insertion was done with usual preliminaries and precautions after 24 hours upto 6 weeks of delivery. Insertion was not performed in presence of any post-partum abnormality such as fever, heavy lochia or with an infected episiotomy. ML Cu-250 has a special long inserter for insertion in this phase and no plunger is needed.

A strict follow-up schedule was maintained, the cases were instructed to attend regularly post-natal clinics accordingly and in between if any complaint.

During each follow up a careful pelvic examination carried out, thread was cut to desired length from time to time while uterus was involuting.

Observations and Discussions

In (73.3%) the devices were inserted within 3 to 5 days. In the studies of Banharnsupawat and Rosenfield (1971) most of the immediate acceptors (66.1%) the device was inserted within 2 to 4 days and in 30.4% cases on 3rd day.

The maximum acceptability to the device was in age group 21 to 25 years (55.5%), while it was found to be equal in women before 21 and after 25 years of age, (22.2% in each) in para one (33.3%) and two (37.6%). Four hundred and

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forty cases (97.8%) were Hindus with majority of them (80%) belonging to middle class families living in urban area (66.6%) with a primary (33.3%) or non-collegiate (36.6%) educational status.

The various complaints noticed were more common with Cu T-200 and Lippes loop as compared to cases with ML Cu-250 (Table I). The incidence and severity of these side effects used decreased with passage of time. None of the cases with multiload Cu-250 complained of prolonged and or excessive lochial discharge while equal number of cases with Cu T-200 and Lippes loop (3.3% of each) had this complaint. Similar to the study of Gary and Anderson (1967) initial menstrual pattern was found to be, of course altered in some of the cases, not only because of IUD but can be also by the recent delivery.

Pain in lower abdomen due to pelvic inflammation was noticed in 10 cases (6.6%). Removal of the IUD was done in 6 cases and 4 cases were treated successfully by conservative management. This can be explained by the fact that sometimes episiotomies get infected due to lack of cleanliness, leading to superadded infection. (Newton 1978). Most of the patients complaining of pain in lower abdomen were in first week of insertion is self explanatory, otherwise also they are having after pains because of uterine involution which is a usual phenomenon in puerperium.

The post-partum expulsion rate was 23.4% and was related to interval between delivery and insertion, being highest during first 48 hours and optimal on 4th day as also reported by Rosenfield and Castadot (1974) during first year of the I.P.P. It was 19% in the study of Banharnsupawat and Rosenfield (1971).

In our study, 10% cases of CU T-200

and 6.6 cases with Lippes loop had expulsion while in only 2 cases (1.3%) of ML Cu-250 expelled, that too within a period of one month, in multiparous women (with 2 or more children). This shows that combination of compatible size and presence of barbed wings to resist expulsion is a sound principle of ML Cu-250 (Van Os *et al* 1976). The character of post-partum uterus with forceful contraction, a patulous cervix or increased irritability of myometrium due to failure of the shape and size of IUD to fit in uterine cavity as with Cu T-200 and Lippes loop appeared to predispose to early expulsion.

Maximum removals (Table I) was done due to partial expulsions (17 cases) that too only with Cu T-200 and lippes loop and none with ML Cu 250. Next common reason for removal was bleeding per vaginum (Menstrual disturbances) followed by non specific pain lower abdomen and pelvic inflammation only in one case removal was done for planning pregnancy.

Similar to studies of Banharnsupawat and Rosenfield (1971) none of the case had perforation.

A meticulous follow-up schedule was maintained. Still 60 cases (40%) were lost in follow up. Continuation rate (Table II) was highest with ML Cu 250 (96%) which could be due to fewer side effects while much less with Lippes loop (81.4%) and Cu T-200 (73.8%)

It has been observed in this study that early post-partum insertion has no effect on involution of uterus as reported by Snidovongs *et al* (1970) and Zerovavy (1967) and on duration of lactation or post-partum amenorrhoea (Hingorani, 1970).

TABLE I
Complaints to the Devices According to Follow up Schedule

| Complaints No. of cases | After 7 days | | | After 1 month | | | After 3 months | | | After 6 months | | | After 1 year | | |
|-------------------------------------|-----------------|----------------|---------------|-----------------|----------------|---------------|-----------------|----------------|---------------|-----------------|----------------|---------------|-----------------|----------------|---------------|
| | ML Cu 250 (150) | Cu T-200 (150) | L. Loop (150) | ML Cu 250 (148) | Cu T-200 (146) | L. Loop (140) | ML Cu 250 (146) | Cu T-200 (142) | L. Loop (138) | ML Cu 250 (144) | Cu T-200 (138) | L. Loop (120) | ML Cu 250 (140) | Cu T-200 (130) | L. Loop (120) |
| (A) <i>Bleeding per vaginam</i> | | | | | | | | | | | | | | | |
| — Prolonged and/or excessive lochia | — | — | — | — | 5 | 5 | — | — | — | — | — | — | — | — | — |
| — Menorrhagia | — | — | — | — | — | — | 5 | 6 | 8 | 1 | 4 | 2 | — | — | — |
| — Meno-metorrhagia | — | — | — | — | — | — | — | 5 | 3 | — | 4 | 2 | — | — | — |
| — Intermenstrual spotting | — | — | 6 | — | — | — | 1 | 8 | 4 | — | 2 | 1 | — | 1 | 1 |
| (B) <i>Pain in lower abdomen</i> | | | | | | | | | | | | | | | |
| — Due to pelvic inflammation | — | — | — | 1 | 3 | 2 | — | 2 | 1 | — | — | — | — | — | — |
| — Due to partial expulsion | — | 9 | 6 | — | 1 | 1 | — | — | — | — | — | — | — | — | — |
| — Dysmenorrhoea | — | — | — | — | — | — | 1 | 2 | 2 | 1 | 1 | 1 | — | 1 | 1 |
| — Non-specific/Backache | 2 | 4 | 5 | 3 | 10 | 3 | — | 3 | 2 | — | 2 | 1 | — | 1 | — |
| (C) <i>White vaginal discharge</i> | — | — | — | — | — | — | 5 | 12 | 10 | 2 | 3 | 5 | 1 | 3 | 2 |
| (D) <i>Expulsion</i> | 2 | 11 | 9 | — | 3 | 2 | — | 1 | — | — | — | — | — | — | — |
| (E) <i>Pregnancy</i> | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — |

TABLE II
Cumulative Event Rate (Per cent)

| Type of device | Expul- sion | Removal | Preg- nancy | Lost to follow-up | Continuation |
|----------------|----------------|---------|----------------|----------------------|--------------|
| ML Cu 250 | 1.3 | 2.6 | — | 6.6 | 96 |
| Cu T-200 | 10 | 16.6 | 6 | 13.3 | 73.8 |
| Lippes Loop | 7.3 | 11.3 | — | 20 | 81.4 |

Summary and Conclusions

A clinical comparative study of 450 cases has been done 150 cases each of ML Cu 250, Cu T-200 and Lippes loop. Insertion in early post-partum period with 4.4% cases in late post-partum period. ML Cu 250 was found to be an ideal post-partum contraceptive device as compared to the other two, due to the following reasons:

1. Easy and safe application after delivery.
2. No increase in post-partum morbidity.
3. No interference with lactation and process of involution of genital tract.
4. An acceptable frequency of side effects.
5. Optimal contraceptive efficacy.

These very preliminary results of this small study suggest that early post-partum insertion of ML Cu 250 may offer a solution to the problem of post-partum fertility control.

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