# COMPARATIVE STUDY OF MULTILOAD Cu-250 WITH CuT-200 AND LIPPES LOOP INSERTION IN INTERVAL PHASE

by

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*Introduction*

The population explosion has widely attracted attention world wide, leading to an intensive search of newer contraceptives. I.U.C.D. idealy and mostly used for spacing pregnancy is a unique contraceptive for providing long term reduction in fertility by a single, simple, economical and safe procedure.

This study was undertaken to evaluate the time phased acceptability, safety and subsequent effectiveness of MULTILOAD Cu 250 (ML Cu 250) as compared to conventional ones (Cu T-200 and Lippes Loop) with special emphasis on use in interval phase.

*Material and Methods*

Five hundred fertile women were selected from State Zanana Hospital, Department of Obst. & Gynaecology, S.M.S. Medical College, Jaipur. These were given various devices for spacing of pregnancy.

The distribution of cases was that 220 were provided with ML Cu 250, 200 with CuT-200 and 80 with lippes loop. The cases were selected after thorough pelvic examination, conditions contraindicating insertion were ruled out, history of any other gynaecological disorder and intake of any oral pills was thoroughly interrogated. In this interval phase insertion was done with usual preliminaries and precautions, 6 weeks after delivery or abortion or after normal menstruation. A rigid follow-up schedule was maintained, the cases were asked to report accordingly and in between if any complaint.

*Observations and Discussions*

The maximum acceptability to the device was in age group 20 to 25 years, 228 cases (45.6%), followed by age group, 26 to 30 years, 150 cases (30%), particularly in cases who had insertion after first child 280 cases (56%) and after second child, 178 cases (35.4%). Device was mainly catered to Hindus in comparison to Muslims and Christians. There was a dense distribution of cases belonging to the middle socio-economic status with a urban background and primary or non-collegiate educational status.

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TABLE I

*Complaints to the Devices According to Follow-up Schedule*

| Complaints | After 7 days | | | After 1 month | | | After 3 months | | | After 6 months | | | After 1 year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ML-Cu 250 | Cu-T 200 | Lippes Loop | ML-Cu 250 | Cu-T 200 | Lippes Loop | ML-Cu 250 | Cu-T 200 | Lippes Loop | ML-Cu 250 | Cu-T 200 | Lippes Loop | ML-Cu 250 | Cu-T 200 | Lippes Loop |
| (A) BLEEDING PER VEGINUM: | | | | | | | | | | | | | | | |
| —Menorrhagia | - | - | - | 1 | - | 2 | 10 | 6 | - | - | - | - | - | - | - |
| —Metrorrhagia | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| —Meno-Metrorrhagia | - | - | - | - | 4 | - | 6 | 2 | 4 | - | - | - | - | - | - |
| —Intermenstrual spotting | - | 5 | 2 | 2 | 1 | - | 2 | 2 | - | 4 | 2 | - | - | 2 | 1 |
| (B) PAIN LOWER ABDOMEN: | | | | | | | | | | | | | | | |
| —Due to pelvic inflammation | - | - | - | - | - | - | - | 2 | 1 | - | 1 | - | - | - | - |
| —Due to partial expulsion | - | 2 | - | - | 5 | 2 | - | - | - | - | - | - | - | - | - |
| —Non Specific | 8 | 10 | 2 | 4 | 10 | 6 | 6 | 3 | 4 | 5 | 8 | 4 | 5 | 4 | 1 |
| —Dysmenorrhoea | - | - | - | - | 9 | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 2 | 1 | 1 |
| (C) WHITE DISCHARGE PER VAGINUM | 6 | 2 | 1 | 4 | 2 | 1 | 2 | 7 | 2 | 7 | 12 | 9 | 6 | 17 | 2 |
| (D) EXPULSION | - | - | - | - | 4 | 3 | - | - | - | - | - | - | - | - | - |
| (E) PREGNANCY | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | 1 |

TABLE II
*Reasons for Removal (Number of Cases)*

| Types of Devices | Bleeding per vaginum | Pain lower abdomen | Pelvic inflam-mation | Partial expulsion | Preg-nancy. | Planning pregnancy |
|---|---|---|---|---|---|---|
| ML Cu-250 | 6 | 2 | — | - | - | 2 |
| Cu-T-200 | 9 | 7 | 3 | 5 | 1 | 2 |
| Lippes Loop | 2 | 6 | 1 | 2 | 1 | - |

TABLE III
*Cumulative Event Rate (Per cent)*

| Types of Device | Expulsion | Removal | Pregnancy | Lost to Follow-up | Continuation |
|---|---|---|---|---|---|
| ML Cu-250 | — | 4.8 | — | 17.2 | 88 |
| Cu-T-200 | 2 | 18.5 | 0.5 | 11 | 68 |
| Lippes Loop | 3.7 | 1.5 | 1.2 | 9.2 | 69 |

Among the three devices under study, ML Cu-250 seems to have fared better enough than other two (Table III) as cumulative event rate shows that there was no expulsions of ML Cu-250 while there was 2% and 3.7% of Cu-T and Lippes Loop respectively. Although there was 1 pregnancy each reported in patients with Cu-T-200 and Lippes Loop, but when the data statistically analysed proved to be 0.5% and 1.2% respectively. Removals due to various reasons tabulated in Table II depicting that amongst the various causes of removal vaginal bleeding was the commonest followed by pain in abdomen and partial expulsion; pelvic inflammation and pregnancy were only seen in cases bearing Cu-T-200 and Lippes Loop. A few removals had to be done due to the patients planning pregnancy, because of one or other reason.

A meticulous follow up schedule was maintained and 57 (10.1%) cases were lost to follow-up. Continuation rate was highest with ML Cu-250 (88%) which could be due to the fewer side effects, while the continuation rate of Cu-T-200 (68%) and Lippes Loop (69%) was more or less same.

The various side effects were more common with Cu T-200 and Lippes Loop when compared with ML Cu-250. As evident from Table I the severity and the incidence of these side effects decreased with increasing duration of the device in utero. Although non-specific symptoms like vague backache, bodyache and leucorrhoea etc. did not vary with the type of device.

*Conclusion*

A clinical trial has been reported of 500 cases using ML Cu-250, CuT-200 and Lipppes Loop. The conclusions concurred upon the study shows that:

1. ML Cu-250 was the best amongst the three.
2. Copper-T devices were more effective in preventing pregnancy as seen but the increase in surface area of copper to 250 mm prevented pregnancy completely (Tatum *et al*, 1974).

3. Expulsion rate was also Nil in ML Cu-250 which could be due to the size being compatible with the average uterus and the presence of barbed wings which further prevents expulsion during spasmodic uterine contraction (Van Os *et al*, 1974).

Ease of insertion, resistance to expulsion and production of effective response without high rates of medical removals due to various side effects have proved the superiority of Multiload Cu-250 when compared with the commonly and conventionally used intrauterine contraceptive devices.

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