EVALUATION OF CU-T INSERTION BY TRAINED NURSES AND DOCTORS

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SUMMARY

Cu-T 200 was inserted in 300 women by doctors and trained nurses. Insertions were done alternately by doctors and nurses and identical criteria for selection of cases for Cu-T insertion were used. Event rates of the end of 12 months of use were evaluated. Medical closures due to expulsions were similar in both groups. Removal of Cu-T for bleeding and infection was slightly more in the doctor group. However, the difference in the overall closure rate between the two groups due to different medical reasons was not statistically signifiant (proportion t test). Thus, it appears that with proper training, nurses can safely and effectively perform IUCO insertions.

INTRODUCTION

One of the most critical problems in National Fertility Control programmes in developing countries is arranging of family planning services especially to rural population. In many developing countries, the use of auxillary personnel to provide health services is gaining increasing acceptance (Flahault, 1972; Rosenfield, 1971; Zeighami, 1976). Several programs have been carried out by numerous groups in both developing and developed countries in which trained paramedical personnel insert IUCDs. Studies carried out by Hartfield (1971) found no significant difference in the complication rate between clinician and nurse insertion group. Ramos et al (1979) and Loghmani and Mitra (1976) found that the net cumulative 1 year continuation rate for women who had a Cu-T insertion by a midwife was significantly lower than for women who had a Cu-T insertionby a clinician. This was due to a slightly higher rate of pregnancy, expulsion, bleeding and/or pain removals among women who had devices inserted by midwives. However, other groups, (Ostergard,1973; Pastane & Rivera, 1977) are of opinion that certain event rates are higher in the physician group (falsely high) as clinicians are often involed in more problematic cases than nurse midwives who routinely perform uncomplicated cases. To date, none of these programs have re-

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turned to a program in which only physicians are allowed to insert devices.

We undertook a prospective study to compare the Cu-T event rates when it was inserted alternately by nurses who were trained at our center and by gynecologists. This reduced any possible bias of case selection either by nurses or doctors since identical criteria were used for selection of cases for IUCD insertion.

MATERIAL AND METHODS

A total of 300 women were enrolled for the study from February 1985 to February 1988 in women attending the Family Welfare Centres of Institute for Research in Reproduction, Bombay. The IUCD inserted in all women was Cu-T 200 L. 150 insertions were done by gynecologists and 150 by nurses. The nurses had either B.P.N.A. or R,N.R.M. qualification.

The nurses had a formal training programme of 6 weeks prior to initiation of the study. The training included lectures on basic anatomy and physiology of the female reproductive system, possible mechanism of IUCD action and case selection (indications, contra-indications and other aspects related to IUCD use). During the practical training period, the nurses were trained to carry out pelvic examinations, to determine the uterine size and position and to exclude any pelvic abnormality. Cu-T insertions using the standard insertion technique and removals were demonstrated. Each nurse performed atleast 10 supervised insertions during the training period. Management of common side-effects such as bleeding, pain etc were discussed.

The nurses and doctors used the same criteria for selecting women for Cu-T insertion. In regularly menstruating women all insertions were done during the post menstrual period. Women were also included in the study if they had one normal period following an abortion or two normal periods following delivery. In women who had lactational amenorrhoea following delivery, insertions were done after a minimum of 40 days follow-

TABLE I

Check list for screening Cu-T acceptors

	Yes	No
Check the following by history :		
1. Increased menstrual or instrumental bleeding	☐	☐
2. Bleeding after intercourse	☐	☐
3. Heavy vaginal discharge	☐	☐
4. Severe dysmenorrhoea	☐	☐
Check the following by examination :		
1. Marked cervical erosion	☐	☐
2. Cervix bleeds on contact	☐	☐
3. Uterus larger than normal size	☐	☐
4. Uterine or adnexal tenderness	☐	☐
5. Adnexal or abdominal masses	☐	☐

ing delivery. Alternate insertions were done by doctors and nurses. The women enrolled for the study were screened with the help of a check list (Table I). In case the nurse had any doubt regarding the suitability of any case, she was instructed to refer the women to the doctor. In our study, the nurses were able to correctly select cases suitable for IUCD insertion.

Women were followed - up for complaints and gynecological check-up at 8 days, 1 month, 3,6 and 12 months following insertion. Data was analysed at the end of 12 months of use using Life Table method of Tietze and Lemit and proportion't' test.

RESULTS AND DISCUSSION

The follow up was 92 per cent in our study. Majority of acceptors in both groups were between 20 - 29 years of age and the distribution was similar in both groups (Table II). Majority of acceptors in both groups had 1 or 2 living children (Table III).

TABLE II

Distribution of acceptors by age

Age	Doctor Group	Nurse Group
15-19 Years	3	2
20-24 Years	52	60
25-29 Years	53	42
30-34 Years	26	28
35-39 Years	16	16
> 40 Years	–	2
Total	150	150

TABLE III

Distribution of acceptors by number of living children

Living Children	Doctor Group	Nurse Group
1	64	57
2	67	76
3	9	17
Total	150	150

All the insertions were performed alternately by nurses and doctors except in one case during the earlier part of the study where the nurse failed to insert Cu-T which was successfully carried out by the doctor. Minimal resistance was encountered while inserting the device due to spasm of the internal os. The follow-up examinations of the women were done either by the doctor or by the nurse. The nurses had no difficulty in managing the IUCD related complaints and side-effects and were able to treat them or refer them as required. Table IV gives the net cumulative rates at the end of 12 months of use. There were two cases of accidental pregnancy in the doctor group and one case of accidental pregnancy in the nurse group. Removal of Cu-T for bleeding and infection was more in the doctor group. Medical closure due to expulsion was similar in both groups. However the difference in the overall closure rates between the two groups due to the different medical reasons was not statistically significant (proportion t test). There was one case of uterine perforation in the nurse group. The women had a Cu-T inserted 3 & 1/2 months after delivery. She had not resumed periods after delivery and was fully breast feeding her child. It is possible that

TABLE IV

Reasons for closure

	Doctor Group	Nurse Group
Number of Cases	150	150
Women months of use	1458	1590
TYPE OF TERMINATION		
Medical Reason		
Pregnancy	2	1
Expulsion	5	7
Bleeding	5	2
Pain	1	0
Infection	2	0
Perforation	0	1
Non-medical Reasons		
Planning Pregnancy	4	4
Personal	12	9
Lost to follow up	15	10
Continuation rate	82.2	88.8

hyperinvoluted uterus was a contributory factor causing perforation for it is reported (Heartwell, 1976) that perforation is likely to occur 10 times more frequently when an IUCD is inserted during lactational amenorrhoea as compared to insertions done in non-lactating women.

Our data showed that the overall continuation rate at 1 year was 82.2 in the doctor group and 88.8 in the nurse group. Thus it appears that with proper training nurses can safely and effectively perform IUCD insertions. In rural centres, where doctors are not always available or when women refuse internal examination by a male doctor, it would be advantageous, if trained ANMs can carry out IUCD insertion.

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