# MINIABORTION IN ONE THOUSAND WOMEN

## (A Personal Experience)

by

R. RAJAN,* M.B.,B.S., M.D., D.G.O.

Minisuction with plastic cannula as a means of early abortion is the least imposing and the most elegant procedure which allows for an easy method of abortion with minimal or no risk to the woman, and obviously very economical too. Moreover, this is the most opportune time for introducing the woman to contraception which may be practised concomitantly.

While miniabortion is practised widely by many doctors in different centres all over the country, this study presented here relates to a single person's experience with this method of abortion in 1000 women. The technical aspects, its reliability, patient acceptance and associated complications combined with certain interesting observations, as experienced by the author, are discussed in detail in this presentation. Special mention is made on its role in promoting contraception.

*Material and Methods*

Over a period of 3 years beginning from May 1975, minisuction was performed in 1000 women with the plastic cannula and modified Karman syringe. Women who had reported for abortion within the second missed periods were selected for the procedure. Any medical disorder was ruled out by a systemic examination. The size of the uterus was confirmed by a careful pelvic examination, and any woman with a more than 8 weeks' pregnancy size was not subjected to this procedure. The suction aspiration was carried out in the outdoor without the aid of any anaesthetic or analgesic agents. To avoid fainting attacks, the patients were advised to report for the procedure after breakfast. No special preperations were required, and the patients were allowed to go home 30 minutes after the procedure and to resume their routine.

In this group there was a special category of 71 patients who had a period of amenorrhoea exceeding 63 days (reported after the second missed period). The size of the uterus was between 8 to 10 weeks' pregnancy duration. Cervix was dilated with laminaria tent and on the following day aspiration was carried out in the operation theatre employing bigger size plastic cannula and modified Karman syringe.

*Patient Selection*: The usual type of patients who had reported for early abortion belonged to the low parity group; and para 1 and 2 constituted 64 per cent of the total patients. There were only 16 nulliparous women, because the married nulliparous women were discouraged from undergoing abortion and unmarried women reported so late that

*Department of Obstetrics & Gynaecology, Medical College Hospital, Kottayam-686 008 (Kerala).

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they were unfit for the procedure. Among those who underwent suction aspiration, 75 per cent had school education and the rest 25 per cent were college educated.

As regards the duration of amenorrhoea, while 479 women had reported within 49 days of last menstrual period, almost a same large number had reported between 50 and 63 days. Since many women could not report earlier and because minisuction was proved to be safer than suction curettage with metal cannula (Rajan and Kaimal, 1977), minisuction continued to be the choice for women reporting between 50 to 63 days from the last menstrual period. However, suction aspiration with Karman syringe and bigger plastic cannula between 8 and 10 weeks of gestation proved to be a tedious procedure. Of the 71 patients, at least 10 patients required the electrical source of suction for completion of aspiration. Another problem was the necessity for repeated aspirations (usually twice or thrice) since the capacity of the syringe is only 50 ml. But in places where electrical suction source is not available, Karman syringe could be tried as the mechanical source of vacuum and is any day superior to the conventional dilatation and curettage (Rajan, 1976).

*Technic*

Within the first 8 weeks, suction aspiration could be successfully completed with 5 mm cannula. Of the 929 women in this group, 5 mm cannula was used in 896 women and in only 33 cases 6 mm cannula was needed. If there was any difficulty in passing the cannula, the cervix was slightly dilated with small Hegar dilators. While there may be some discomfort at the time of passing the cannula, the aspiration procedure per sé was painless. A grating sensation which concided with the patient's complaint of uterine cramps was highly suggestive of completion of the aspiration procedure. It is always better to stop the procedure at this stage, since further scraping will only produce more pain to the patient and trauma to the uterine surface. With cannulae which tend to bend inside the uterine cavity these sensitive signals will not be appreciated. A non-pregnant woman usually complains of more severe cramps.

Occasionally, there was difficulty in withdrawing the cannula which was usually overcome by applying rotatory movement. In 2 patients, the tip of the cannula was broken and was retained inside the uterus, and both patients expelled the broken pieces spontaneously.

*Blood Loss*: Since the procedure is very quick and completed within 1 to 2 minutes, the blood loss was generally very much limited. However, depending on the duration of amenorrhoea there was a relative increase in blood loss (Table I). In non-pregnant women the aspiration was invariably less than 20 ml, and usually the quantity ranged from 5 to 10 ml.

TABLE I

*Average Blood Loss and Duration of Pregnancy*

| 30 to 49 days | 50 to 63 days | 64 to 84 days |
|---|---|---|
| 25.30 ml | 42.40 ml | 65.10 ml |

*Diagnosis of Pregnancy:* By histological examination of the aspirate in 306 consequetive women with amenorrhoea ranging from 30 to 63 days, 88.66 per cent were confirmed to be pregnant at the time of the procedure. Percentage of pregnancy was less when aspiration was done within 49 days (68.00%) as against the incidence between 50 to 63 days (93.75%). It was also observed that 50

per cent of those who underwent endometrial aspiration within the first 10 days of missed periods were not pregnant. Hence, in the subsequent series, the procedure was differed until the patient was at least 10 days past the expected menses. However, this principle was not adhered to in women desiring concomitant contraceptive protection.

Immunological test for pregnancy (Pregnosticon-tube test) was considered for 100 women with amenorrhoea ranging from 40 to 49 days. It was found that a positive test had 96 per cent reliability and a negative test only 80 per cent reliability.

Observing flow of liquor at the time of insertion of the cannula, measuring the quantity of the aspirate, and careful inspection of the aspirate for villi were employed as the rough and ready methods of diagnosis of pregnancy. No patient who had more than 25 ml aspiration was found to be not pregnant. Minimal aspiration (5 to 10 ml) associated with severe uterine cramps invariably suggested a non-gravid aspiration.

*Concurrent Contraception*

It seems reasonable to expect that the most highly motivated group to accept contraception would be those women who have resorted to abortion in order to avoid another birth. Minisuction was often considered as an alternative to a safer method of contraception, and hence at the time of termination, many were psychologically prepared to accept a contraceptive method, especially the one which can be advocated simultaneously with the suction procedure. In the present series about 60 per cent of the women opted for some type of contraceptive method (Table II).

TABLE II
*Contraceptive Acceptance in 60% of Women*

| I.U.D. | Hormones | Minilap sterilisation | Vasectomy | Vaginal sterilisation |
|---|---|---|---|---|
| 538 | 26 | 17 | 8 | 7 |

In an earlier communication Rajan and John (1978) have suggested that concurrent post-abortal insertion of copper T is a reasonably safe and effective procedure which does not increase the incidence of somatic complications of abortions. Since then this method had become very popular among our patients, and as shown in Table III intra-uterine device, especially copper T, appears to be the contraceptive method of choice. The reasons for preferring copper T were many: (i) convenience of simultaneous insertion without any additional effort, (ii) unlike other methods of contraception IUD does not require constant motivation, and a few minutes of medical time provides contraceptive protection for a few years, (iii) Copper T provides greater protection with minimal complication rate, (iv) More than 60 per cent of the patients belonged to the low parity group who wanted a method for spacing the births.

TABLE III
*Different Types of Intra Uterine Devices Used*

| Type of device | No. of patients |
|---|---|
| Copper T 200 | 448 |
| Soonawala 'old' | 25 |
| Soonawala 'modified' | 18 |
| R. M. Device | 16 |
| Nova T | 12 |
| Lippes Loop | 10 |
| Multi Load copper '250' | 9 |
| Total IUDs | 538 |

The expulsion rate of copper T within one month of use was definitely more

than that reported for inter-pregnancy insertions. However, a greater number of women reached by the post-abortal insertions justifies the slight increase in the expulsion rate. After 3 months of use copper T inserted post-abortaly was as good as the inter-pregnancy insertion.

*Follow-up Visits*: The patients were advised to report for follow-up one week after the procedure. Among the IUD users, 78 per cent had reported for check-up, and in the non-IUD users 68 per cent had reported. The postabortal blood discharge was slightly more in the IUD users and lasted for one more day on an average when compared to the non-IUD users. However, among the different types of IUDs there was only trivial difference in the duration of flow.

Three types of post-abortal blood discharge was observed: (i) continuous flow after the aspiration, lasting for 3 to 7 days. (ii) Bleeding free interval of 2 to 3 days immediately after the procedure which was followed by menstruation-like discharge for 3 to 5 days. (iii) Absolutely no bleeding after the aspiration. The third group of patients should be handled cautiously because in those occasions where the technic had failed with the pregnancy continuing there was absolutely no post-abortal discharge. If the blood loss was heavy the patients were subjected to curettage with a diagnosis of incomplete abortion. Many of the IUD users with excessive blood loss respond with the removal of the device.

*Complications*

The major factor recommending minisuction with plastic cannula for women having 30 to 63 days amenorrhoea is that the risk of complications is lower than that of suction abortion with metal cannula in the first trimester. In the present series of 1000 women the overall complications rate was 2.3 per cent, whereas suction curettage in the first trimester was associated with two times greater complication rate (4.33%) (Rajan and Nair, 1977). Risk of the procedure was at its lowest when the aspiration was limited to 49 days from the last menstrual period, but the incidence of pregnancy will be only 68 per cent. Comparing suction curettage with metal cannula, for women with 50 to 63 days amenorrhoea minisuction is definitely a safer procedure and is associated with a pregnancy rate of 93.75 per cent.

The different types of complications encountered are given in Table VII. Incidence of complications was directly related to the experience with the technic. Number of complications were more in the first 200 cases, and thereafter showed a sharp decline. In 11 patients, the aspiration was incomplete necessitating a subsequent curretage. As shown in Table V incomplete abortion was more common when minisuction was attempted after 49 days. Contrary to this failure of the procedure to aspirate the pregnancy was more common when aspiration was at-

TABLE IV
*Complications of Mini-Abortion*

| Incomplete abortion | Failures | Perforations | Sepsis | Total incidence |
|---|---|---|---|---|
| 1.10% | 0.50% | 0.40% | 0.30% | 2.30% |

TABLE V
*Details of Incomplete Abortion in 11 Patients*

| Patient No. | Duration of Amenorrhoea | Quantity aspirated |
|---|---|---|
| 1 | 63 days | 52 ml |
| 2 | 61 days | 10 ml |
| 3 | 41 days | 15 ml |
| 4 | 62 days | 50 ml |
| 5 | 63 days | 35 ml |
| 6 | 60 days | 100 ml |
| 7 | 60 days | 60 ml |
| 8 | 50 days | 35 ml |
| 9 | 48 days | 40 ml |
| 10 | 53 days | 30 ml |
| 11 | 57 days | 45 ml |

tempted before 49 days. In all the 5 cases of failures the aspiration obtained was limited to 20 ml or less, and none of these patients had any post-abortal discharge. Failures were managed by a second aspiration at the time of follow-up visit on the 7th day except in one patient, the details of which are given below.

This patient was a para 3 who reported for endometrial aspiration on the 48th day of her last menstrual period. She had a bicornuate uterus (Bicornis unicollis) which was missed at the time of initial examination. The aspiration was performed in the non-gravid horn and an R.M. device was inserted. Histological examination of the aspirate revealed decidual reaction. After 7 days she reported with excessive bleeding and the IUD was removed and by that she was relieved. After 3 months she reported with a suprapubic mass which on further examination suggested pregnancy growing in one horn of the uterus. Laparotomy confirmed the diagnosis (Figs. 1 and 2) and she had a hysterotomy and sterilisation.

Perforation occurred in 4 patients and all of them were treated on conservative lines. Acute pain complained by the patient with the cannula traveling for a longer length quite often clinched the diagnosis. Majority of the patients developed syncopal attack due to severe pain. All were relieved by analgesics and conservative line of treatment.

Severe pelvic infection was observed in 3 patients and they were treated with antimicrobials. One patient who had also an IUD inserted developed a unilateral pelvic mass, and was subjected to hysterectomy and right salpingo-oophorectomy 7 months after the abortion.

*Conclusion*

Whereas miniabortion has many aspects in its favour, its main drawback is that sometimes it is performed in non-pregnant women. Till more reliable methods of pregnancy diagnosis such as radio-receptor assay are available, it may be preferable to postpone the aspiration until the patient has atleast 10 days past her expected menses. Aspiration undertaken between 42nd to 49th day from LMP gives the best results in terms of pregnancy rate and reduced complications. However, the results can be further improved by employing immunological method of diagnosis during this period.

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