

## EXPULSIONS OF I.U.C.D.

by

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The intra-uterine device when introduced in India, was regarded as an ideal contraceptive to be used on a national scale for control of population. After two years of experience, we are wiser and realize that it is not an ideal contraceptive, as there are pregnancies, expulsions, and removals for bleeding and pain. Research is being carried out all over the world to minimize the above disadvantages by improving the shape and size of the device. This article deals with the incidence of expulsion of various IUCDs and an attempt is made to correlate some factors which may be involved in the process of expulsion as found in the Suparibaug and Naigaum Family Planning Clinics at Bombay. As the clinics are attached to a research Unit, the women are called for frequent follow-up visits. The routine is to examine the patient after one week, first menstrual period, three, six and twelve months. Later on, they are asked to come at intervals of six months. Every attempt is made to examine the patient at least once or twice a year. Those who could not come to the clinic were followed up

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by social workers visiting them in their homes and the available history was written down in questionnaires. Only those cases who had left Bombay or their residence without a forwarding address could not be followed. They amounted to only 4.2% of the total cases.

TABLE I

*Incidence of insertions and expulsions*

	No.	Expulsion	Percentage
1st insertion	714	98	13.7
2nd insertion (70 Expulsions 28 Removals)	98	28	28.5
3rd insertion	13	6	48.2
4th insertion	3	1	
Total		133	

Insertions are mainly carried out in the first week after menses. The insertions of the expelled devices were easy and no complications were reported. The obstetric history of these 98 cases was scrutinized. All had a history of full-term normal deliveries except 12 cases who had abortions. Ten cases had only one abortion. One case had three and the remaining cases had four abortions. The menstrual history was normal with the cycle regular and flow normal. Dysmenorrhoea was conspicuous by its absence. Backache was

reported by almost all cases. Breast feeding was a common factor for those who had expulsions and those who did not expel. Frequency of sexual intercourse was not higher than in those who had not expelled the device.

TABLE II  
Type and size of device (First insertions only)

Name of device	Insertions	Expulsions	Percentage of expulsions
Margulis spiral	40	13	32.5
Lippes loop 25	40	6	15.0
" " 27.5	350	40	11.4
" " 30	175	12	6.9
" " 31	11	—	—
Soonawala	98	27	27.5

The figures show that Lippes' loop 30 had remarkably a low rate of expulsion, Margulis spiral had the highest. Our overall rate of 13.7% is high due to the inclusion of Margulis and Soonawalla devices which have a higher expulsion rate.

The other factors which we considered were age and parity.

TABLE III  
Age group of insertions and expulsions

Age group	Insertions	Expulsions	Percentage
17 years	4	—	—
18-22 years	129	35	27.1
23-27 years	272	34	12.5
28-32 years	199	23	11.6
33-37 years	78	6	7.7
Over 38 years	32	—	—

The age group 18-22 showed the highest percentage of expulsions. The incidence of expulsions falls as the age increases.

TABLE IV  
Parity of expulsions

	Insertions	Expulsions	Percentage
0	—	—	—
1	76	25	33.0
2	145	23	15.9
3	152	17	11.2
4	116	11	9.5
5	75	8	10.7
6 & over	—	14	—
No information	12	—	—

The parity one women had a higher expulsion rate. Both the parity and the age group showed that the younger women with low parity had a higher expulsion rate. It was thought that the high incidence of expulsions in parity I group could have been due to a smaller device being inserted. On analyzing the data, we

TABLE V  
Parity of age group 18-22

Parity	Insertions	Expulsions	Percentage
1	47	18	38.3
2	49	10	20.4
3	28	5	17.9
4	8	2	—
5	1	—	—

found that 17 out of these 25 women had L.L. 27.5 and only two had L.L. 25. The rest had Margulis or Soonawalla devices. It was interesting to find out which factor, age or parity was of greater significance.

This Table brings out the fact that the parity is more important as even in the young women of 18-22 years age group, the highest incidence of expulsion was with parity one.

The factor of the period which elapsed between the last delivery or abortion and insertion, did not show much difference in the two series.

were discovered at the time of examination. 70% of these expulsions were complete. In one doubtful case x-ray had to be taken. Sometimes the thread is not visible and a careful examination of the uterus has to be made with a sound or a small dilator. One has to be absolutely sure that the device has been expelled before inserting another, otherwise accidentally two devices will be inserted in the same woman.

If a pregnancy occurs the device is likely to be expelled. Two such expulsions occurred which are omitted

TABLE VI  
*Insertion & Expulsion period*

	1 day to 1 week	1-4 weeks	5-8 weeks	9-12 weeks	13-25 weeks	26-52 weeks	over 52 weeks	Total
Lippes' loop 25	—	2	—	3	1	1	2	9
„ „ 27.5	3	14	16	5	9	8	1	56
„ „ 30	2	5	11	3	—	2	—	23
„ „ 31	—	—	—	—	—	—	—	—
Margulis spiral	3	3	3	1	3	2	—	15
Soonawala loop	11	9	1	2	2	5	—	30
Total	19	33	31	14	15	18	3	133

The majority of expulsions occurred in the first eight weeks but it is interesting to note that there were expulsions even after six months and a year.

Only twelve cases reported cramps during the expulsion; undue bleeding rarely accompanied the expulsions. Majority of the expulsions occurred at the time of a menstrual period; 72% of these expulsions were noted by the women themselves and the rest

from this list. These cases would be counted as pregnancies and not as expulsions. It is essential to obtain a history of last menstrual period when dealing with an expulsion. If the woman has missed a period, a pregnancy test should be carried out or an interval of a fortnight should be allowed to elapse before the diagnosis of pregnancy is confirmed or repudiated. The woman should be subjected to an x-ray examination or a

reinsertion only when a pregnancy is ruled out:

*Summary*

(1) Margulies and Soonawalla devices have a higher rate of expulsion.

(2) Lippes Loop 30 m.m. has a very low rate of expulsion.

(3) The devices are mainly ex-

pelled within the first eight weeks after insertion, but the expulsions continue to occur later, although at a lower rate.

(4) Women who have had one child have the highest rate of expulsion.

(5) Younger women of age group between 18-22 years have a high rate of expulsion.