

STUDY OF 1500 CASES OF FIRST TRIMESTER MEDICAL TERMINATION OF PREGNANCY

(Dilatation achieved by rapid dilatation, Laminaria tent and Isapgol Tents)

by

VIMLESH MATHUR

SUNANDA GUPTA

ANJU TALY

and

PUSHPA GUPTA

SUMMARY AND CONCLUSIONS

A study of 1500 cases of first trimester pregnancy termination conducted as an outdoor procedure is presented. It proved safe and simple. The use of tents further lowers the complication rate by elimination of the need of anaesthesia, risk of cervical trauma, uterine perforation, haemorrhage and long term sequelae of cervical incompetency. We found that Dilex C is cheap, is easily available in India, does not cause dumb belling, has no internal side effects, is as and perhaps more effective dilator than Laminaria tents.

But, it is available in only one size and the need to insert multiple tents may be there. (Pawade et al 1982).

Abortion, inspite of strong condemnation by many Governments, religious bodies and above all by medical profession itself is and probably for centuries has been one of the most widely used method of birth control throughout the world. The present study was undertaken to show that with the increasing demand of therapeutic abortion, with limited resources in developing countries, termination of pregnancy could be done

in a simple and safe manner with no additional staff or sophisticated equipments.

Material and Methods

The present study was carried out on 1500 patients attending Gynaecological O.P.D. of State Zenana Hospital attached to S.M.S. Medical College, Jaipur for termination of pregnancy under 12 weeks of gestation. The patients were divided in three groups.

Group I. comprised of 500 patients who had rapid dilatation with conventional Hegars dilators.

From Department of Obstet. & Gynae., S.M.S. Medical College and State Zenana Hospital, Jaipur.

Accepted for publication on 10-2-1983.

Group II. In 500 patients slow dilatation was achieved by introduction of laminaria tent.

Group III. In 500 patients dilatation was achieved by use of Isapgol tents, introduced by Lucknow Central Drug Research Institute India (Dilex-C Unichem Laboratories, Bombay).

After a thorough history, examination and routine investigations in Group I termination of pregnancy was done by rapid dilatation of the cervix with Hegar's dilators and suction evacuation under paracervical block and 10 mg. I.V. diazepam. The blood loss and operative time were noted.

In Group II patients, laminaria tents (sterilised by 98% alcohol for 48 hours) were inserted 12 hours before suction evacuation. The number of tents was usually 1 or 2 patients were allowed to go home and next day termination of pregnancy was done by suction evacuation.

In Group III, Isapgol tent (pre sterilised by and irradiation) was inserted in similar way as laminaria tent and suction evacuation was carried out next day morning under paracervical block.

All the patients were discharged after 2 hours of termination followed up after 2 weeks and 6 weeks.

Observations

The study comprises of 1500 women undergoing termination of pregnancy at State Zenana Hospital, Jaipur, 36 per cent of patients were in the age group of 21-25 years.

79 per cent were Hindus, 82 per cent belonged to urban areas and socio-economic class II and III. The commonest indication for termination was socio-economic grounds (spacing), next was contraceptive failure. Vasectomy and steriliza-

tion failures accounted for 3 per cent and medical disorders for 4 per cent of cases.

TABLE I
Cervical Dilatation Achieved

Dilatation of cervix in mm.	Group I	Group II	Group III
8	20	5	2
9	—	20	15
10	33	40	10
11	122	15	28
12	60	25	20
13	150	82	30
14	115	113	120
15	—	170	200
16	—	30	75
Average dilatation achieved in mm	13	12.5	12

Table I depicts the cervical dilatation achieved in various groups. The average dilatation achieved in Group I was 13 mm., Group II—12.5 mm. and Group III—12 mm. It was observed that tents were more effective in dilating the cervix of parous than nulliparous patients and average cervical dilatation was more in women with higher gestational period in Groups II and III both.

Regarding time taken for termination (Table III) the operation time increased with increasing period of gestation in all the three groups, but, it was much less in Groups II and III than in Group I, the reason being that cervical dilatation was not required. The mean operative time, irrespective of gestational period was 9.13 minutes in Group I, 5.3 minutes in Group II and 5.1 minutes in Group III respectively.

The mean blood loss during termination (Table III) at 6 weeks gestation was 25 ml., 24 ml. and 20 ml. in the Groups I, II and III respectively. It was 84 ml., 70 ml. and 62 ml. at 8 weeks of gestation, 119 ml.,

TABLE II
Time Taken for Operative Procedures

Gestation period	Group I			Group II			Group III		
	No.	%	Meantime	No.	%	Meantime	No.	%	Meantime
6 weeks	175	35	4.5 min.	235	47	2.8 min.	220	44	5.5 min.
8 weeks	145	29	7.5 min.	150	30	4.9 min.	180	36	4.8 min.
10 weeks	110	22	10.3 min.	75	15	6.0 min.	80	16	6.0 min.
12 weeks	70	14	14.7 min.	40	8	7.3 min.	20	4	7.2 min.
Mean Operative Time	9.5 min.			5.3 min.			5.1 min.		

100 ml. and 90 ml. at 10 weeks of gestation and 232 ml., 187 ml. and 188 ml. at 12 weeks of gestation. The overall blood loss was less in Groups II and III than in Group I.

Table IV shows that cervical trauma occurred in 10 cases of Group I. It is obvious that too forceful and rapid dilatation is an important factor leading to cervical trauma. Uterine perforation and pelvic infection were other noted complications.

Isapgol series, only one tent was introduced in all the 500 cases. Khanna (1977) Jay Shree *et al* (1980) and Khanna *et al* (1980) introduced tents 8-24 hours prior to evacuation, while in this study they were always introduced 12 hours prior to termination. Laminaria tents were expelled in 2 per cent cases and Isapgol tents in 1.6 per cent of cases. This was probably because of vaginal tampons were not used properly to keep the tent in position i.e. they were incor-

TABLE III
Complications of Medical Termination of Pregnancy

Type of Complication	Group I		Group II		Group III	
	No.	%	No.	%	No.	%
Uterine perforation	2	0.4	1	0.2	—	—
Cervical trauma	10	2.0	2	0.4	1	0.2
Pyrexia	5	1.0	10	2.0	5	1.0
Incomplete abortion	5	1.0	3	0.6	2	0.4
Pelvic Infection	5	1.0	6	1.2	4	0.8

Discussion

Of the 1500 cases, 41 per cent were of 6 weeks and 29.5 per cent were 8 weeks gestation, thus supporting the observations of Hodgson and Portman (1974). In 72 per cent of 500 cases of laminaria tents, only one tent was inserted and in rest 28 per cent two tents were introduced. In

rectly placed. Eaton *et al* (1972) reported an expulsion rate of 3.2 per cent while no expulsion was reported by Khanna *et al* (1977).

The average cervical dilatation was 12.5 mm. with laminaria tent and 12 mm. with Isapgol tent. This is in agreement with 8-12 mm. dilatation obtained by Eaton *et al* (1972) and Shrotri *et al* (1980). It is

clear from the present study that prior dilatation of the cervix reduces operative time and complications regardless of duration of pregnancy. The mean operative time was 9.3 minutes, 5.3 minutes and 5.1 minutes in the three groups respectively and the difference between Group I and the rest two groups is quite significant. This compares well with operative time of 5 minutes reported by Khandwala *et al* (1975).

The average blood loss of 115, 92.7 and 90 ml. in the three groups compares with an average loss of 79.3 ml. reported by Berric *et al* (1971). Blood loss in Groups II and III is significantly lower than in Group I because of already obtained cervical dilatation by tents, and also because tents stimulate the uterine activity. So, products of conception get separated and are free in the cavity facilitating speedier and easier evacuation.

There were few complications with tents, and the incidence of cervical trauma was minimum. Similar have been the findings of Devi (1975) and Khanna *et al* (1977). In termination of pregnancy, after mechanical dilatation the incidence was much higher—2 per cent, hence the tents are obviously of great advantage. The incidence of pelvic infection in the present study was 1 per cent with rapid dilatation and 1 per cent with tent dilatation.

Incomplete abortion requiring recurettage occurred in 5 cases with rapid dilatation (1.0 per cent) and in 10 cases with tents (1 per cent), practically similar were the views of Eaton *et al* (1972).

References

1. Berric, B. M., Kuppressanin, M. and Kapor Stanlovic, M.: *Am. J. Obstet. Gynec.* 116: 813, 1973.
2. Devi, P. K.: Proceedings of Second International Seminar on 'Maternal and Perinatal Mortality—Pregnancy Termination India March 1975, Page 425.
3. Eaton, J. C., Cohen, F. and Bollinger, G. C.: *Obstet. Gynec.*, 39: 53, 1972.
4. Hodgson, J. E. and Portman, K. C.: *Am. J. Obstet. Gynec.*, 120: 802, 1974.
5. Jayashree, M., Krishnamurthy, L. and Eduljee, S. Y.: Paper presented at the International Seminar—Maternal and Perinatal Mortality, Pregnancy Termination, New Delhi, October, 1980.
6. Khandwala, S. D. and Pai, D. N.: *J. Obstet. Gynaec. India.* 25: 747, 1975.
7. Khanna, M. W., Dhar, G., Kachroo, S. and Jamilla, B.: *J. Obstet. and Gynaec. India.* 27: 288, 1977.
8. Khanna, N. M., Saron, J., S. Nando, R. C., Singh, S., Kambo, V. P., Setty, B. S. and Bhawan, B. N.: *Contraception.* 21: 29, 1980.
9. Shrotri, A. N., Deodhar, S. S., Deshpande, A. B. and Asita, F. U.: Paper presented at the International Seminar on Maternal and Perinatal Mortality. Pregnancy Termination, New Delhi October, 1980.