

# FIRST TRIMESTER TERMINATIONS AND DIFFICULTY IN CERVICAL DILATATION

by

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## SUMMARY

The major problem is cervical dilatation. Our aim is to have slow gradual, atraumatic dilatation to the extent required and it should be reversible. If adjuvant is used cervical dilatation is easy. A comparative study of cases of suction evacuation, where dilatation was done with conventional rigid dilators and where isaptent was used as an adjuvant, is presented. It appears that if good dilatation is achieved the complications are minimum.

### Introduction

According to Tietze (1981) nearly 55 million MTPs are done in the world every year. When one looks at the cost medical (morbidity and mortality) economical and emotional, suction evacuation in first trimester and grayzone appears to be safe and effective although it also requires some sort of anaesthesia/analgesia and is blind. The major problem is the delay in seeking M.T.P. Many women come in 2nd trimester, more so unmarried ones. Those who come in first trimester do not come very early. Mortality goes on increasing as is considered to be 0.5/100000 (Western) if gestation is less than 9 weeks, three times of this between 9 to 10 weeks and at 11 to 12 weeks it is 10 times. Major problem here is difficult dilatation sufficient to take out products of that big uterus. This ends up in cervical injury, perforation and

sequae of all this, early and late, including incompetent os.

Very often conventional rigid dilators made of metal or plastic are used. Sometimes adjuvants used are either natural hydrogels like age old laminaria tents or Isaptent made from seed husk of plantago ovata (Isapgol) or synthetic hydrogels like lamigel or drugs like prostaglandins. Laminaria tents, isaptents etc produce dilatation by force which is slow while synthetic hydrogels produce chemical dilatation i.e. softening of cervix.

Wheeler and Schneider from North Carolina (1983) have done an experimental study by using short elastic collar to stimulate cervix. They found that at maximum dilatation of collar rigid dilators produce pressure of 700 Kilopascals as compared to 190 Kilopascals in laminaria tents and 14 Kp by Lamigel (1 pound/Squ. Inch force is equal to 6.895 KPa).

With experienced operator, dilatation is generally accomplished with axial forces of 1 to 3 kg which is much more with inexperienced operator when tapered dilators are

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used for mechanical pressure. There is a threshold diameter of 9 mm beyond which one finds a rise in pressure for further dilatation and cervical injury is common. This effective pressure on cervical canal depends upon radial force exerted by the operator, the current diameter of cervical canal and length of cervical canal. Radial force is 5 to 6 times of axial force depending on the size of dilator.

Our aim is to have slow gradual, atraumatic dilatation of cervix to the extent required and reversible.

#### *Material and Methods*

From June 1976 to March 1985 that is from inception of Post Partum Programme at MGIMS, 1974 medical terminations have been done and this is nearly 22.7% of all obstetric and abortion cases. Out of 1974 MTPs, 926 were 1st trimester terminations and 1048 2nd trimester terminations. Though there was morbidity we were lucky to prevent mortality although most of the 2nd trimester terminations were done by intra-amniotic hypertonic saline. From inception to 1981 May, there were 1170 cases, 505 1st trimester and 665 2nd trimester a proportion of 1 to 1.33. Out of 505 cases, 340 were terminated by suction evacuation by using conventional rigid metallic dilators. After that we started using Isapent and the present study includes 150 cases where isapent was used. There were 50 cases in each group with insertion operation interval of 6, 12 hours and 18 hours. (Groups D1, D2 and D3 respectively). Initially we tried with 4 hours but the results appeared very unsatisfactory.

Age, parity and gestation were almost comparable in all the groups. Single tent soaked with sterile water tied through loop

of string was inserted upto internal os without giving any medication. Occasional case complained of mild discomfort otherwise there was no problem. In one patient of each group there was little difficulty in insertion and slight bleeding from volselum bite. There was no displacement, cervical tear, perforation pain, bleeding or dysuria. Spontaneous expulsion occurred in one case of each group D1 and D3. There was no difficulty in removal. Spinal analgesia was used if patient was for sterilization otherwise, diazepam, fortwin or intravenous pentothal was used. Dilatation achieved was measured by Hegar's dilators. If necessary further dilatation was done. Though a dilatation of 8 mm was considered satisfactory it was not considered adequate as further dilatation was required. In all cases check curettage was done after giving methergin, 0.4 mg. I.V. Cervical injury, blood loss or any other complication was noted. Post-operatively patients were observed from 4 to 24 hours.

#### *Observations*

Dilatation achieved by isapent was satisfactory beyond 6 hours (Table I). Dilatation achieved in primigravida was better if device was kept for more hours. Anjaneyulu and Patel (1979) found more dilatation in primigravida as compared to multipara in a given time. Khurana and Sarin (1979) did not find any relationship with age parity or gestational period. Complications were minimal when Dilex 'C' was used (Table II). Our conventional group has a morbidity of 10.16% which could be brought to negligible number. In cases where further dilatation was required in big uterus it was easy reducing complications and time taken. If there are no complications contraceptive, specially IUD or sterilization is advised.



TABLE I  
Dilatation Achieved With Isaptent in mm.

Group	< 8	9-10	11-12	>12	Minimum	Maximum	Mean
D1	27	18	4	1	3	16	8.14
D2	15	22	7	6	5	16	10
D3	15	23	7	5	6	16	9.5
C	—	—	—	—	—	—	—

TABLE II  
Dilatation in Primigravida and Multigravida

	Mean Primigravida	8 or more	Mean Multigravida	8 or more
D1	7.45	41.67%	8.38	60.53%
D2	10.27	84.62%	8.77	69.12%
D3	10.17	83.03%	8.67	68.12%
C	—	—	—	—

TABLE III  
Complications in Isaptent Series

	Difficult Dilatation	Volsellum Bite	Bleeding during dilatation	Blood loss		>average
				Minimum	Average	
D1	2	2	1	20	28	2
D2	1*	—	—	24	24	2*
D3	1	—	—	25	23	2

TABLE IV  
Complications in Conventional Group (in %)

Group (In %)	
Cervical tear	0.6
Excessive haemorrhage	3.17
Incomplete abortion	1.27
Perforation	0.3
Blood transfusion	0.9
Sepsis	0.9
Fever	2.22
Vomiting	0.9
Retention of urine	0.3

#### Conclusion

One feels that these terminations should be done by suction evacuation, perforation

with conventional D and C is 8 times and many end up in hysterectomies. For suction good dilatation is required and if dilatation is done in least traumatic way morbidity is negligible. It appears that method of dilatation is more important in preventing immediate and delayed complications of abortion morbidity than method of evacuation.

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TABLE I

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