

# COMPARATIVE STUDY OF 300 CASES OF TERMINATION OF PREGNANCY WITH INTRAAMNIOTIC INJECTION OF 10% & 20% HYPERTONIC SALINE DURING 2ND TRIMESTER

by

(Mrs) N. D. YAJNIK\*

and

S. K. JOSHI\*\*

Injection of intraamniotic hypertonic saline injection is a widely accepted method for termination of pregnancy. As hypertonic saline with higher percentage is more dangerous, a study is made here by comparing cases terminated by 10% and 20% hypertonic saline.

### Material and Method

From April, 72 to April, 76, Totally 300 cases of terminations of pregnancy were studied in which 150 cases were terminated by injection of 10% hypertonic saline and 150 by 20% hypertonic saline injection in amniotic cavity by abdominal route.

All cases were selected after proper screening of the case. Size of the uterus varied from 14 to 20 weeks. Anaemic

patients were treated beforehand and all cases were immunized against tetanus. Bleeding time and clotting time were also checked. Amount of liquor aspirated was 3 to 5 cc, while amount of hypertonic saline injected was 10 cc per week of pregnancy.

Study is made in relation to injection abortion interval, injection abortion interval in relation to duration of pregnancy and parity, and complications in both series.

Out of 300 cases there were 29 primigravida and 121 multigravida for 10% hypertonic saline series and 26 primigravida and 124 multigravida in 20% hypertonic saline series.

As shown in Table I mean injection abortion interval was 29.3 hours in the

TABLE I  
Mean Injection Abortion Interval in Hours (in relation to parity)

	10% hypertonic saline	20% hypertonic saline
Mean injection abortion interval	29.3	26.65
In primi.	30.30	25.2
In multi.	29.07	28.07

\*Assistant Professor of Obstetrics & Gynaecology, B.J. Medical College, and Civil Hospital, Ahmedabad-16.

\*\*Ex Professor & Head of the department of Obstetrics & Gynaecology, B.J. Medical College and Civil Hospital, Ahmedabad-16.

Accepted for publication on 7-4-1977.

series of 10% hypertonic saline, while it was 26.65 hours in the series of 20% hypertonic saline that is less in latter series. Again in primigravidae, mean injection abortion interval was 30.30 hours in 10% series and 25.2 hours in 20%

series, while in multigravidae it was 29.07 hours in 10% series and 28.07 hours in 20% series.

These findings conclude that from all aspects mean injection abortion interval is less in 20% hypertonic saline series than in 10% series. In 10% series, primigravida and multigravida do not show much difference while in 20% series, primigravida took less time for abortion after injection of hypertonic saline.

Table II compares injection abortion interval in both series in relation to

Table III shows complications in both series. Rate of incomplete evacuation was higher in 10% series, 23.33% as compared to 20% series. In 20% series incomplete evacuation occurred in 18.66% of cases. This might be due to less osmotic pressure changes created by 10% hyperonic saline. Other complications like hypertension, headache were noted with 20% series and not in 10% series. Failure rate was 1.33% in 10% series and 2% in 20% series, but in 20% series one case was of vesicular mole.

TABLE II  
Mean Injection Abortion Interval in Hours in Relation to Duration of Pregnancy

		14-16 weeks pregnancy	16-18 weeks pregnancy	18-20 weeks pregnancy
10% series	Primi	23.25	30.66	32.30
	Multi	27.22	27.41	33.40
20%	Primi	26.5	25.16	25.4
	Multi	30.01	28.36	26.48

TABLE III  
Complications

	10% Series	20% Series
Incomplete evacuation	23.33%	18.66%
Severe headache	—	0.66%
Hypertension	—	2%
Severe haemorrhage	0.66%	2%
Shock	—	1.33%
Failure	1.33%	2%

duration of pregnancy. In 10% series in both primigravida and multigravida injection abortion interval increased with duration of pregnancy, while in 20% series there was slight decrease in injection abortion interval with increasing duration of pregnancy. When duration of pregnancy was 14 to 15 weeks, time required for abortion was less in 10% series and more in 20% series. As pregnancy advanced, that is 18 to 20 weeks, injection abortion interval was less with 20% series.

Severe haemorrhage was found in 0.66% cases in 10% series and 2% cases in 20% series. None of the case showed change in bleeding time, clotting time and fibrinogen level.

Permanent contraceptive measures were adopted by 92 patients in both series, while I.U.C.D. was accepted by 22 patients. One hundred and sixty accepted conventional contraceptives.

#### Conclusions

1. Comparative study of cases of ter-

mination of pregnancy by intraamniotic injection of 10% and 20% hypertonic saline was done at Civil Hospital, Ahmedabad.

2. Majority of cases were multigravida.

3. Mean injection abortion interval was less in 20% series that is 26.65 hours as compared to 29.3 hours in 10% series. In 20% series primigravida took less time to abort.

4. With increasing duration of pregnancy 10% hypertonic saline took more time for abortion as compared to 20% hypertonic saline.

5. Injection abortion interval was less in 10% series with 14-16 weeks pregnancy than in 20% series.

6. Incomplete evacuation was more common in 10% series while other complications like hypertension, headache were not seen in 10% series. Severe

headache and hypertension was noted in 0.66% and 2% of cases in 20% series.

7. Majority of cases accepted contraceptive measures 30.66% accepted permanent method, either tubectomy or vasectomy.

Summary

Comparing both series, if 10% hypertonic saline is used for intraamniotic injection, it takes more time to evacuate the uterus with more cases of incomplete evacuation. A favourable aspect of 10% hypertonic saline cases was that none of them had complications like severe headache, hypertension.

Injection abortion interval was about 3 hours less with less number of incomplete evacuation in cases treated by 20% hypertonic saline. Severe headache and hypertension were noted in only 0.66 and 2% of cases.