INTRA-AMINIOTIC UREA FOR MID-TRIMESTER ABORTION

by

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In India since the implementation of Abortion Law there is a great demand for abortion, but a number of patients seek abortion in mid-trimester when vaginal procedures may be hazardous.

Hysterotomy had been the method of choice till 1960 but is not used now unless sterilization is also performed at the same time. It is also not suitable for un-married patients.

Intra-amnitoic lnjection of 50% dextrose or 20% hypertonic saline are often associated with many complications and even death. Prostaglandins are being tried using different routes of administration but this also is not without complications.

Exploring safer methods of mid-trimester abortion, intra-amniotic urea came into picture (Green Half and Diggory, 1971). It has inherent safety feature i|e. its ability to be injected intravenously or intra-peritoneally without adverse effects.

Material and Methods

Three hundred patients seeking mid-trimester abortion at Kasturba Hospital, Delhi were taken for study.

Patients were divided into 2 groups; 150 patients had syntocinon drip (5-50 units in 500 ml) after 12-24 hours of intra-amniotic injection if they did not abort by that time (Group I). In 150 patients syntocinon drip (5-50 units in 500 ml) was started immediately after intra-amniotic injection (Group II).

Method

Eighty grams of urea powder was sterilised by autoclaying for 20 minutes under 15 pound pressure. It was dissolved in 200 ml. of 5% dextrose just before intra-amniotic injection.

Patient was asked to empty the bladder just before the procedure. Using 18 gauge spinal needle, amniotic cavity was punctured in the midline midway between the symphysis pubis and the fundus of the uterus. When clear liquer came freely, 40% urea solution was injected into amniotic cavity by drip infusion in 10-15 minutes. If there were untoward symptoms, drip was discontinued.

The induction abortion interval was noted. Any untoward symptoms were recorded.

Pulse chart was maintained. Bleeding and clotting time and clot retraction were done daily till patients aborted. Intake and output chart was maintained. In patients who failed to have uterine contractions after 96 hours, intra-amniotic urea was repeated. if uterine size was more than 16 weeks of gestation and vaginal evacuation was done if uterine size was less then 16 weeks of gestation.

After every abortion of the foetus, if the placenta was not expelled within 1 hour it was removed manually.

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After every abortion, vaginal examination was carried out to remove any remaining pieces of placenta or membranes and to rule out any cervical lacerations.

Observations

7.33% in group I and 19.33% in group II aborted within 24 hours. All patients in group II aborted within 96 hours of intraamniotic injection. Fourteen cases in graph I took longer than 96 hours to abort.

TABLE I
Mean and Range of Induction Abortion Interval

Group of patients	Range (Hrs.)	Mean (Hrs.)
Group—I	9.75 to 95.50	53.48
Group—II	6.08 to 92.17	40.67

TABLE II
Complete versus Incomplete Abortion

	Group-I	Group-II
Complete abortion	41.33%	30.67%
Incomplete abortion	58.67%	69.33%

TABLE III
Side Effects and Complications:
During Instillation of Urea

	No. of cases	Percentage
Vomiting	8	(2.67%)
Excessive thirst	8	(2.67%)
Tingling sensation	8	(2.67%)

After Instillation Till Abortion

	No. of cases	Percentage
Headache	3	(1%)
Thirst	3	(1%)
Vomiting	3	(1%)
Pain in abdomen	3	(1%)
Fever more than 38°C	5	(1.67%)
Excessive Haemorrhage	7	(2.33%)

After Abortion Till Discharge

Fever more than 38°C, 11 cases (3.67%)

Re-admissions:

16 patients were re-admitted (5.33%) 11 for complete abortion and 5 for fever (1.67%).

Follow up

Two hundred and sixty patients came for follow up 4-8 weeks after abortion:

TABLE V
Presenting complaints

Presenting complaints	N. of cases	Percentage
No complications	136	52.31
Pain lower abdomen	52	20.00
Vaginal discharge	29	11.15
Menorrhagia	17	6.54
General weakness	26	10.00

Discussion

90.67% patients of group I and all patients of group II aborted within 96 hours. Mean induction abortion interval in group I was 53.48 hours and in group II 40.67 hours. The difference was highly significant statistically. Out of 14 pattients who failed to abort after 96 hours of intraamniotic injection, 8 with uterine size more than 16 weeks had repeat urea injection and they all aborted. The remaining 6 with uterine size less than 16 weeks had vaginal evacuation.

The problem of retained placenta and incomplete abortion is associated with midtrimester abortion induced by all commonly used techniques. It is difficult to compare the results of various workers as different workers have described retained placenta after variable periods of time. Incomplete abortion was found in 58.67% patients of group I and 69.33% patients of group II.

Side effects like nausea, vomiting and headache were minimal and were report-

ed in 3.67% patients. 2.33% patients had excessive haemorrhage. There was no case of clinical coagulopathy, cervical injury or rupture uterus in this series.

Conclusion

It can be concluded that intra-amniotic urea is a safe and effective agent for induction of midtrimester abortion. Use of syntocinon drip immediately gives better results. One has to agree with Weinberg and Shepard (1973) who remarked 'The most striking advantage of the use of hypertonic urea is the absence of life-threatening sequelae. This increased safety more than compensates for the minimal increased incidence of induction abortion interval and failure rates.

References

1. Green Half, J. O. and Diggory, R. L. C.: Brit. Med. J. 1: 28, 1971.
2. Weinberg, P. C. and Shepard, M. K.: Obstet. Gynec. 41: 451, 1973.