

# HYSTEROGRAPHIC STUDY IN CASES OF REPEATED ABORTIONS

by

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Recurrent abortion is an important problem in obstetric practice. Genital tract abnormalities form a significant percentage of cases of habitual abortion and premature deliveries. Hysterosalpingography has been used as a standard diagnostic procedure in such cases as it outlines the developmental uterine abnormalities, such as hypoplastic uterus, bicornuate and unicornuate uterus, and acquired lesions like, intrauterine synechiae and cervical incompetence, especially after repeated Medical Terminations of pregnancies which are in common practice now.

## Material and Method

The present study was undertaken in the department of Obstetrics & Gynaecology, G.S.V.M. Medical College, Kanpur. Besides hysterosalpingography, few other investigations like VDRL, KT. and glucose tolerance test were also done routinely in all cases of abortion to find out the cause. VDRL and Kahn tests were positive in 3 cases and glucose tolerance test was abnormal in 1 case. Semen examination and

blood examination for antispermatozoal antibodies were positive in 10 cases (18.5%) of repeated abortion.

Hysterosalpingography was carried out by using Diaginol viscous 40% W/V, or lipoidal ultrafluid 38% W/V. Under radiographic exposure of 80 KV, 50 MAS with Buckey and cassette and per speed screen on a plate of size 10" X 8".

## Observation and Results

The age of patients of abortions ranged from 19 to 42 years with an average of 27.80 years.

Table I shows classification of abortion according to number of abortions.

TABLE I  
Classification According to Number of Abortions

No. of abortions	No. of cases	Percentage
2	17	31.48
3	20	37.03
4	12	22.22
5 or more	5	9.25

Table II shows period of gestation at which abortion occurred. Maximum number of the cases aborted between 3 to 3½ months.

Hysterosalpingographic findings in 54 cases of abortions revealed normal uterus and cervix in 20 cases (37%) and abnor-

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TABLE II  
Period of Gestation at Which Abortion Occurred

Period of gestation	No. of cases	Percentage
2-2½ months	17	31.48
3-3½ months	19	35.18
4-4½ months	14	25.92
5-5½ months	4	7.40

mal shape of uterus in 34 cases (62.96%). The latter included a number of developmental and acquired abnormalities which are tabulated in Table III.

in uterus and cervix were demonstrated in 62.96% cases of abortion by hystero-graphy. Palmer *et al* (1965) also observed abnormal hystero-graphs in 63% cases and Schonfeld *et al* (1967) reported an incidence of 82.85%.

In our series of 54 cases of abortion, 10 followed medical termination of pregnancy, 5 (50%) of which showed definite abnormalities in hysterosalpingogram. These defects were of intrauterine synechae in 2 cases and cervical incom-

TABLE III  
Developmental and Acquired Abnormalities Revealed on Hystero-graph

Type of developmental anomaly	No. of cases	Percentage
Hypoplastic uterus (Fig 1)	5	9.25
Unicornuate uterus	2	3.70
Arcuate uterus	1	1.85
Hypoplastic bicornuate (Fig. 2)	1	1.85
Septate uterus	1	1.85
Funnelling of internal Os (Fig. 2)	8	14.81
Cong. elongation of cervix.	1	1.85

  

Type of acquired anomaly	No. of cases	Percentage
Small submucous polyp.	2	3.70
Filling defect simulating, intrauterine synechae (Fig 3)	9	16.66
Finding suggestive of adenomyosis	1	1.85
Uterine tuberculosis	3	5.55
Irregular cervical canal	7	12.96

The commonest developmental anomaly observed was of funnelling of internal os in (14.81%) of cases. The commonest acquired abnormality was that of intra-uterine synechiae in (16.66%) of cases.

#### Discussion

Table IV, shows a comparative chart showing the observations of different workers in regards to hystero-graphic findings in cases of repeated abortion.

In the present series abnormal findings

petence in 3 cases. One case who had two repeated medical terminations of pregnancy showed cervical incompetence as well as synechae and her both fallopian tubes were also blocked at cornual end (Fig. 3). These hysterosalpingograms were taken one to two years following termination of pregnancies.

#### Conclusions

1. Hystero-graphy revealed developmental anomalies in 35.18% of cases of

TABLE IV  
Hystero-graphic Findings Observed by Different Workers in Cases of Abortions

Authors	Year	Hypo- plastic uterus	Unicor- nuate uterus	Arcuate uterus	Bicor- nuate uterus	Double uterus	Funneling of Int. Os.	Septate uterus	Cong. elong of cervix
Palmer et al	1965	14.9	—	—	—	14.9	31.9	—	—
1st series		11.7	—	—	—	19.2	34.2	—	—
2nd series		—	12.5	—	—	—	—	—	—
Rozin	1965	—	—	—	—	—	3.5	—	—
Jaya Krishna et al	1966	4.6	4.6	5.50	14.7	14.7	9.19	—	—
Usha Krishna	1970	15.0	5.0	10.00	5.0	—	30.0	—	1.85
Mukerjee et al	1972	9.25	3.7	1.85	1.85	—	14.8	—	—
Present series	1976	(Plate No. 1)			(Plate No. 2)				

abortions, commonest being funnelling of internal os in 14.81% of cases and acquired abnormalities of uterus and cervix in 40.73% of cases, commonest being uterine synechae in 16.6% of cases.

2. Out of 10 cases of abortions following medical termination of pregnancy, 5 (50%) revealed abnormal hystero-graphic findings which included cervical incompetence in 3 cases, uterine synechae in 2 cases and in 1 case who had two repeated terminations showed cervical incompetence as well as synechae and her both tubes were also blocked.

3. Hystero-graphy, therefore is an important diagnostic method to detect the cause of recurrent abortions, particularly in those cases where the clinical examination is either normal or inconclusive.

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See Figs. on Art Paper I