

## ROLE OF HYSTEROSALPINGOGRAPHY IN CASES OF RECURRENT ABORTION

by

SANGEETA SHARMA

J. KAR

K. C. MATHUR

and

R. JINA

### SUMMARY

In the present study hysterosalpingography was performed in 30 cases of recurrent abortion. Commonest hysterosalpingographic finding was hypoplastic uterus (20%), funelling of the internal os (16.7%) and bicornuate uterus (13.3%). It was concluded that hysterosalpingography is a very important investigation in the cases of recurrent abortion and this technique calls for further evaluation in cases of recurrent abortions.

### Introduction

Hysterosalpingography is a very important investigation in cases of recurrent abortions. Various causes of recurrent abortion such as congenital anomalies of the uterus, incompetence of the cervical os, intrauterine synechae can be diagnosed with the help of hysterosalpingography.

### Material and Methods

The present study was undertaken in the department of Obstetrics and Gynaecology, B.R.D. Medical College, Gorakhpur. In the present study 30 cases of recurrent abortion were studied. Patients having two or more abortions were included in this study. Before performing

*From: Departments of Obstetrics and Gynaecology and Radiology, B.R.D. Medical College, Gorakhpur (U.P.).*

*Accepted for publication on 6-7-85.*

hysterosalpingography other investigations like ABO and Rh blood grouping, VDRL of both partners and fasting blood sugar estimation of patient was performed to exclude other causes of recurrent abortion. Hysterosalpingography was performed in the post menstrual phase with the help of Conray 420.

### Observation and Results

The age of patients having recurrent abortion varied from 20 years to 36 years. 40% patients were in the age group of 25 to 30 years and 26.7% were in the age group of 30 to 35 years.

As evident from Table I 46.66% cases had 3 abortions and 26.67% cases had 4 abortions.

In the present study period of abortion varied from 6 weeks to 20 weeks. As shown in Table II 26.67% cases had abortion at 16 weeks and 20% cases had abortion at 14 weeks.

TABLE I  
Distribution According to Number of Abortions

No. of Abortions	2	3	4	5 and more	Total
No. of cases	5	14	8	3	30
Percentage	16.67	46.66	26.67	10.00	100.00

TABLE II  
Recurrent Abortion in Relation to Period of Gestation

Period of gestation (weeks)	6	8	10	12	14	16	18	20	Total
No. of cases	—	2	2	4	6	8	5	3	30
Percentage	—	6.7	6.7	13.3	20.0	26.7	16.0	10.0	100.00

TABLE III  
Radiological Findings

Radiological findings	Number	Percentage
<i>Uterine cavity</i>		
1. Normal	10	33.33
2. Enlargement	—	—
3. Deformity (congenital)	14	46.67
4. Irregularity of the wall	—	—
5. Filling defect—Solitary	1	3.33
—Multiple	—	—
6. Funelling of internal os	5	16.67
7. Uterine synechae	1	3.33
<i>Tubes</i>		
1. Normal	18	60.00
2. Block—Unilateral	10	33.33
—Bilateral	2	6.67

TABLE IV  
Different Anomalies of Uterus

Nature of anomaly	Number	Percentage
1. Hypoplastic uterus	6	20.0
2. Bicornuate uterus	4	13.3
3. Funelling of internal os	5	16.7
4. Arcuate uterus	3	10.0
5. Unicornuate uterus	1	3.3

TABLE V

Incidence of Congenital Anomalies of Uterus as Reported by Various Authors

Uterine anomaly	Palmar <i>et al</i> (1965)		Rozin <i>et al</i> (1975)	Krishna <i>et al</i> (1965)	Muker- jee <i>et al</i> (1970)	Upreti <i>et al</i> (1978)	Ambiye <i>et al</i> (1981)	Present series %
	Ist series %	IInd series %	%	%	%	%	%	
1. Hypoplastic uterus	14.90	11.70	—	4.60	13.33	9.25	9.80	20.00
2. Unicornuate uterus	—	—	12.50	4.60	3.33	3.70	2.40	3.33
3. Arcuate uterus	—	—	—	5.50	13.33	1.85	2.40	10.00
4. Bicornuate uterus	—	—	—	14.7	6.67	—	4.80	13.30
5. Hypoplastic bicornuate uterus	—	—	—	3.33	1.85	—	—	—
6. Didelphys	14.90	19.20	—	14.70	3.33	—	—	—
7. Septate uterus	—	—	—	—	1.85	—	—	—
8. Funelling of internal os	31.90	34.20	—	9.19	30.00	14.80	2.14	16.67

In the present study congenital anomalies of uterus were found in 46.67% cases, funelling of the internal os in 16.67% cases, solitary filling defect in 3.33% cases and uterine synechae in 3.33% cases. Out of 14 cases having congenital anomaly of uterus, hypoplastic uterus was found in 20% cases and bicornuate uterus was found in 13.3% cases.

#### Discussion

Table V shows radiological findings as reported by various workers.

In the series of Mukerjee *et al* (1972), Upreti *et al* (1978) and also in our series, maximum number of cases were in the age group of 25 to 30 years and commonest period of gestation was 14 to 16 weeks.

Congenital anomalies of the uterus especially bicornuate uterus and hypoplastic uterus are an important cause of recurrent abortion (Jeffcoate, 1975). In our study congenital anomalies of the uterus were found in 46.67% cases, which is in accordance with the findings of Krishna *et al* (1970); Mukerjee *et al* (1972) and Upreti *et al* (1978). In our study the incidence of hypoplastic uterus (20%) was higher than Palmar *et al*, 1965 (14.7%); Krishna *et al*, 1970 (4.6%); Mukerjee *et al*, 1972 (13.33%); Upreti *et al*, 1978 (9.25) and AMBIYE *et al*, 1981 (4.8%).

The incidence of funelling of internal os (16.67%) in our study was less as compared to Palmar *et al*, 1965 (34.2%); Mukerjee *et al*, 1972 (30%) and higher

as compared to AMBIYE *et al*, 1981 (2.14%) and J. Krishna *et al*, 1966 (3.5%).

Filling defects inside the uterine cavity simulating uterine synechae were found in 16.67% cases of Upreti *et al*, (1978), 4.8% cases of AMBIYE *et al* (1981) and 3.33% cases in our series. The incidence of filling defects as reported by Upreti *et al* (1978) is quite high as compared to our series and other authors.

Solitary filling defect inside uterine cavity due to submucosal polyp was found in 3.70% cases of Upreti *et al* (1977) and solitary filling defect due to submucosal fibroid was found in 2.4% cases of AMBIYE *et al* (1981). In our study solitary filling defect due to polyp was found in 3.33% cases, which is in harmony with the findings of other workers.

#### References

1. AMBIYE, V. R., SAROJI, R. M. and RAWAL, M. Y.: J. Obstet. Gynec. 31: 666, 1931.
2. JEFFCOATE, N.: Principles of Gynaecology Butter Worth Scientific, 191, 1975.
3. KRISHNA, J., KRISHNA, U. R. and PURANDARE, B. N.: J. Obstet Gynec. India. 18: 573, 1966.
4. KRISHNA, V., SHAH, N. Y., VAIDYA, P. R., JOSHI, M. S. and MEHTA, M. M.: J. Obstet. Gynec. India. 20: 537, 1970.
5. MUKERJEE, M., MUKERJEE, K. and AGARWAL, A.: Proceedings of the XVIth All India Obstet. Gynec. Congress, 53-57, 1972.
6. PALMAR, R., PULSFORD, J. and JOSETTE, P.: Acta. Obstet. Gynec. Scand. (Eng. translation), 44: 126, 1965.
7. ROZIN, S.: Utero salpingography in Gynaecology. Charles C. Thomas, Springfield, Illinois, p. 199, 1965.
8. UPRETI, S., MUKERJEE, M., TANDON, S., MATHUR, K. C. and SINGH, U. K.: J. Obstet. Gynec. India. 28: 15, 1978.

See Figs. on Art Paper IV