

## HYSTEOSALPINGOGRAPHY AND DIAGNOSTIC LAPAROSCOPY IN CASES OF INFERTILITY

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### SUMMARY

92 cases of infertility were studied by hysterosalpingography and laparoscopy. The agreement between findings of hysterosalpingography and laparoscopy was 61.53%. Difference was noted in 10 (19.26%) cases. Hysterosalpingographic findings were inaccurate for the diagnosis of peritubal and periovarian adhesions and other pelvic pathology but hysterosalpingography is useful for luminal study of fallopian tube and ovary.

Hysterosalpingography and Laparoscopy are complimentary procedure in infertility cases.

#### *Introduction*

In the past diagnosis of infertility was very difficult, but now hysterosalpingography has been considered a primary investigation in cases of infertility. Now laparoscopy which has become the keystone of infertility workup has attributed immensely to successful management of infertility problem.

Laparoscopy replaces exploratory laparotomy more and more particularly since the vast majority of cases run with the minimum of risks. Complications are very rare, immediate immobilization of patient is very short and scar minimal.

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#### *Material and Methods*

The study was conducted at M.L.B. Medical College, Jhansi during one year from May, 1982 to April, 1983 to evaluate the hysterosalpingography and laparoscopy in infertility cases and plan for better management.

Before labelling the patient infertile, husbands seminogram was done. Patient was called for endometrial biopsy premenstrually. At the 7th or 8th day post menstrually, hysterosalpingography and tubal testing was done. Patient was again called for diagnostic laparoscopy in next cycle. If patient did not conceive within 3 months or any abnormality is detected in tubal testing and hysterosalpingography. Thus well selected 92 cases in which both hysterosalpingo-

graphy as well as diagnostic laparoscopy is applied.

**Results**

Table I shows cases which were totally missed on hysterosalpingography. There are cases reported of having adhesions. There is 1 case of endometriosis and 1 case of endometriosis and 1 case of tubo-ovarian mass. There are also 2 cases of ovarian cyst. There is 1 case of absence of tube which seems to cornual blockage during hysterosalpingography.

**TABLE I**  
**Findings Missed by Hysterosalpingography and Diagnosed by Laparoscopy**

S. No.	Findings of laparocopy	No. of cases	Percentage
1.	Adhesions	9	9.61
	Peritubal	5	
	Periovarian	4	
2.	Tubaovarian mass	1	1.92
3.	Endometriosis	1	1.92
4.	Absence of tube	1	1.92
5.	Ovarian cyst	2	3.84

Table II shows comparative findings of tubal patency by different methods. The agreement between findings of hysterosalpingography and laparoscopy is 61.53%. Differences is noted in 6 cases. There were 4 blocked tubes in laparoscopy but on hysterosalpingography 6 cases were found to have one tube block-

ed but on laparoscopy 10 cases were found where one tube was blocked.

**Discussion**

Our study clearly demonstrates that both normal and abnormal tubal testing and hysterosalpingographic findings are associated with diagnostic error. Occasionally hysterosalpingography fails to diagnose significant pelvic pathology and more often the procedure over diagnose the non-extensive pelvic disorders.

The findings of present study indicate that pelvic endoscopy especially laparoscopy is more informative than hysterosalpingography. Identical diagnostic accuracy by both procedure obtained (61.53%) of cases. Difference is noted in 10 cases (19.26%). In these cases hysterosalpingographic findings were inaccurate and extent of abnormality was not recognised. Peritubal and periovarian adhesions were commonly missed by hysterosalpingography. These findings are similar to those Katman and Moghissi whose diagnostic accuracy obtained in 53% of cases. In 19% of 5 patients hysterosalpingography was completely inaccurate and in another 28% of cases the extent of abnormality was not recognised.

Moghissi *et al* 1975 concluded that laparoscopy and hysterosalpingography are complementary procedure. In the

**TABLE II**  
**Comparative Findings on Tubal Patency by Tubal Testing, Hysterosalpingography and Diagnostic Laparoscopy**

Sl. No.	Method used	Both tubes blocked	Both tubes patent	One tube patent
1.	Tubal testing	5	36	11
2.	Hysterosalpingography	6	32	9
3.	Diagnostic Laparoscopy (Chromotubation)	4	38	10



present series agreement between hysterosalpingography and laparoscopy in 61.53%.

Golditch 1970 encountered same problem in 2 of his 29 patient. Coltrat, 1972 found discrepancy in 51% of his cases. Seth and Krishna 1979 found 17 out of 20 patients had one or both tubes patent though found to be blocked in hysterosalpingography. In our series 6 tubes are found to be blocked on hysterosalpingography but laparoscopy revealed only 4 tubes blocked on chromotubation.

Our routine is to perform hysterosalpingography a part of infertility investigations and to reserve laparoscopy for those who are having an abnormal hysterosalpingogram finding no detectable cause for their infertility or follow-

ing correction of deserved abnormality. Laparoscopy and hysterosalpingography should be considered supplementary procedures in a large population of infertile females where hysterosalpingography is normal, laparoscopy is successful in knowing the pathology. In cases of long infertility suspicion of pelvic abnormality and further management of infertility laparoscopy should always be preferred.

#### References

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