# HYSTEROSALPINGOGRAPHY AND LAPAROSCOPY IN THE STUDY OF INFERTILE WOMEN

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SUMMARY

The Authors confront the data obtained from HSG and laparoscopy carried out in women with sterility problems to evaluate the diagnostic validity of each one of these investigations.

There is agreement between the results of both methods in 74.19% of the patients.

They think that, for a conclusive evaluation of the tubal factor in infertility, laparoscopy is most useful.

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The tubal factor is considered responsible of infertility in 30-40% of sterile or infertile women.

Hysterosalpingography (HSG) has been for many years the only used diagnostic method in the investigation of the tubes.

Now laparoscopy, almost free from operatory risks, is utilized as an able supplement to HSG ([1]).

However, some Authors have reported a certain discrepancy between the findings at HSG and at laparoscopy ([2, 3, 4]).

We have investigated the diagnostic validity of the two methods for the evaluation of the infertility.

## MATERIAL AND METHODS

We have examined 62 women affected by infertility. Among them, 42 had primary and 20 secondary infertility.

The evaluation of couples included gynecological examination, study of cervical, uterine, tubal and ovarian factors, and the investigation of the male partner.

Hysterosalpingography was performed during the proliferative phase.

Laparoscopy was performed during the proliferative phase with the patient in general anesthesia and gynecologic position, an insufflation needle is introduced at a certain point (between the median and the outer thirds) of an imaginary line connecting the umbilicus and the left upper fore-iliac bone, so as to avoid touching the epigastric artery. 3/4 liters of carbon dioxide are injected at an average pressure of 20-30 mmHg, thus creating pneumoperitoneum. A crescent-shaped incision is made on the lower edge of the umbilical scar (cutis and aponeurosis are cut) and a direct-sight endoscope is introduced.

The injection of Fallopian tubes is performed with methylene blue through syringe in the uterus.

The indications of laparoscopy were either an abnormal HSG or an inexplicable infertility with a normal HSG.

## RESULTS

The HSG and laparoscopic findings are shown in table 1.

We found same findings in 74.19% of patients.

The false-positive HSG was 16.12%; the false-negative HSG was 9.67%.

Table 1. — *Correlation between HSG and laparoscopy in infertile women.*

| Hysterosalpingography | | | Laparoscopy | | | | | |
|---|---|---|---|---|---|---|---|---|
| Diagnosis | No. patients | (%) | Normal | (%) | Tubal occlusions | (%) | Adhesions | (%) |
| Normal | 22 | (35.48) | 16 | (25.80) | 6 | ( 9.67) | | |
| Tubal occlusions | 25 | (40.32) | 6 | ( 9.67) | 14 | (22.58) | 5 | (8.06) |
| Pelvic adhesions with tubal pain | 15 | (24.19) | 4 | ( 6.45) | 5 | ( 8.06) | 6 | (9.67) |
| Total | 62 | | | | | | | |

There were no laparoscopic complications.

When laparoscopy indicated laparotomy, this was soon carried out.

## DISCUSSION

We found same findings between hysterosalpingography and laparoscopy in 74.19% of women.

The false-positive HSG was 16.12%; the laparoscopy has avoided an useless laparotomy to these patients.

The false-negative HSG was 9.67%; the laparoscopy showed mainly adhesions for these women.

The HSG gives useful informations about anatomic uterine (cervix + corpus) and tubal conditions (occlusions, adhesions). It's not effective for the diagnosis of peritubal adhesions and may give false-negative results on account of tubal spasms which occur when the investigation is not preceded by administration of antispasmodic drugs or when the radiologist instilles the contrast medium too rapidly or at low pressure.

The laparoscopy permits to observe tubal pathology, not disclosed by HSG, as salpingo-oophoritis, adhesions which may alter tubal course, endometriosis and ovarian cysts, and finally to observe the fymbriae, which are very important for tubal functionality.

Furthermore, laparoscopy through biopsy permits to prick and drain small and benign cysts and to resolve small pelvic adhesions.

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