

Hysterosalpingography in diagnosing abnormal uterine anomalies in patients of infertility

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Abstract

Background: With the rising infertility levels worldwide, women are regularly being subjected to wide variety of tests, both invasive as well as noninvasive.

One of the most common tests done in evaluation of infertility is Hysterosalpingography or HSG.

Aims: The purpose of this study is to evaluate Hysterosalpingography findings in patients being evaluated for infertility.

Materials and methods: A total of 70 cases of Hysterosalpingography were done over a period of 5 months from August to December 2022.

The procedure was done on 6th to 10th day of menstrual cycle, before ovulation. The procedure was explained to the patient, consent obtained.

All cases were done under fluoroscopy guidance.

Patients received antispasmodics and analgesics about 20 minutes before the procedure.

The patient was placed in lithotomy position, speculum inserted. Uterine sound was inserted to assess whether uterus is anteverted or retroverted.

76% sodium tauroglycolate was injected into the uterine cavity taking care there are no air bubbles in the syringe. Xray films were taken.

Post procedure, patient was given analgesics and antibiotics for 5 days.

Results: Out of 70 cases who underwent Hysterosalpingography, majority of patients were in the age group of 31 to 40 years (48.5%).

Patients in age group of 20 to 30 years constituted 44.2%, while Patients above 40 years constituted 7.14%. Majority of patients had normal HSG, with normal uterine cavity and Bilateral spill which was 63 patients (90%).

Most common abnormalities were tubal block and hydrosalpinx. One case showed bicolps bicornuate uterus, while one patient had septate uterus.

One case showed filling defect due to submucosal fibroid along with hydrosalpinx.

Keywords: hydrosalpinx, uterine, abnormalities

Introduction

Infertility is one of the common reasons for depression, stress and anxiety in the today’s times.

It leads to increased expenditure of vast array of tests, and sometimes even forcing patients to follow superstitions. It leads to increased stress and depression especially in females.

Infertility is defined as inability to conceive after 12 months of regular unprotected sexual intercourse. It is classified into primary or secondary infertility.

There are many causes of infertility in females, as tubal adhesions, cervical stenosis, tubal block, uterine anomalies and so on.

The World Health Organization in 1976 reported that tubal occlusion and acquired tubal anomalies accounted for 85% of infertility in Africa. (1), (12)

There are a lot of tests done to evaluate infertility, like laparoscopy and hysteroscopy.

But HSG is the most common and foremost investigation performed as it is noninvasive, cheaper and easily done.

Materials and methods

A total of 70 Hysterosalpingography procedures were done in a period of 5 months, from August to December 2022.

Age group of patients ranged from 24 to 46 years.

	20-30(age in years)	31-40(age in years)	41-50(age in years)
Number of patients	31	34	5

	20-30	31-40	41-50
Left tubal block			
Right tubal block			
Bilateral tubal block		1	1
Unilateral hydrosalpinx			
Bilateral hydrosalpinx		2	
Bilateral spill			
Cervical stenosis			
Septate uterus		1	
Bicornuate bicolpus anomaly	1		
Submucosal fibroid		1	

Figure 1: Normal HsG



Figure 2: Bilateral hydrosalpinx



Figure 3: Normal HSG.



Figure 4: Bilateral tubal block.



Figure 5: HSG showing filling defect due to submucosal fibroid.



Figure 6: Bicornuate bicollis uterus

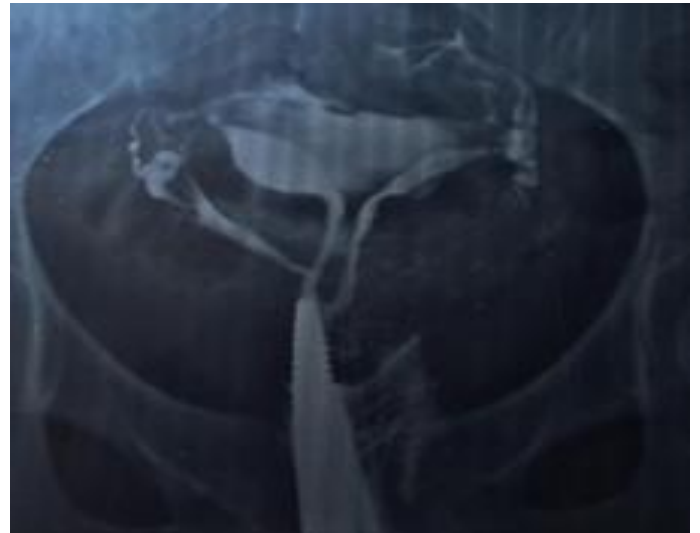


Figure 7: HSG showing Septate uterus

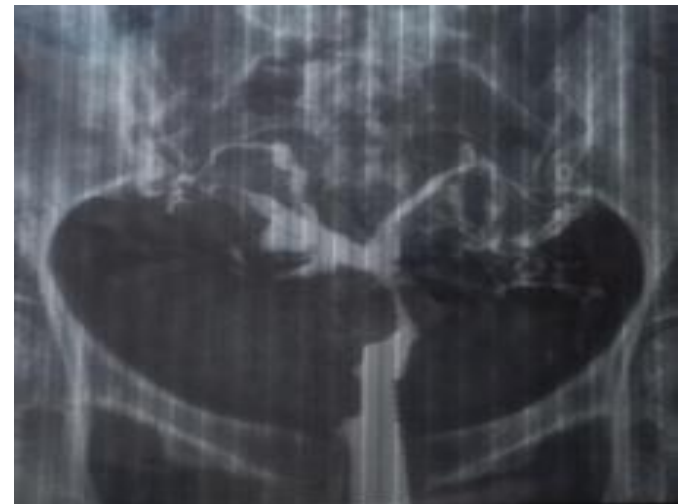


Figure 8: Normal HSG



Figure 9: Bilateral tubal block with extravasations of dye in pelvic veins.



Discussion

Hysterosalpingography (HSG) is done under fluoroscopy to visualize the uterine cavity and lumen of the fallopian tubes as part of assessment for female factor infertility. (2) Normal study shows normal uterine cavity, with normal fallopian tubes with Bilateral spill.

Causes of lack of spillage are spasm, prior surgeries, masses, ectopic pregnancies and pelvic inflammatory disease. (3,12). Normal width of the uterine cavity is between 27 – 32mm. Tubal pathologies have also been reported as the most common pathology in several studies (4,5,7, 9,10), but with much lower percentages in more recent studies. (6,8,11) Hysterosalpingography is a noninvasive investigation that is useful in evaluating reasons of infertility in women. It is easily performed and hence forms one of the earliest investigations in infertility.

Conclusion

Infertility is a major problem leading to unhappy couples, divorce, depression and stress. HSG is an ideal investigation that can diagnose tubal blocks, uterine anomalies and help in the management of infertility.

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