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ROLE OF LAPAROSCOPY IN ABNORMAL HSG

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ABSTRACT

Objective : To assess the role of laproscopy in evaluating tubal patency in patients with abnormal HSG.

Design : Two hundred patients refered to our tertiary care hospital with abnormal HSG were taken up for the study.

Results : Of the 200 patients abnormal hysteroscopic findings were found in 60(30%), in laproscopy abnormal uterine cavity findings in 50(25%),pcod 60(30%),endometriotic cysts in 20(10%),tubal abnormalities were found in85(42.5%).

Conclusion : Diagnostic hysterolaparoscopy is an effective and safe tool in detailed evaluation of infertility, particularly for identifying tubal blockages, peritoneal endometriosis, adnexal adhesions and mullarian anamolies. In today's era of assisted reproductive techniques , laparoscopy is one of the first step in the evaluation of an infertile patient.

KEYWORDS : Infertility, HSG-hyserosalpingography, laparoscopy,Chromopertubation,DHL-Diagnostic hysterolaproscopy

INTRODUCTION

Infertility is one of the most common disorders and is defined as the inability to conceive after one year of regular unprotected intercourse.[1,2]

Infertility is a painful condition which affects about 8-12% of the couples in the reproductive age group worldwide[3]. Of the etiologies of infertility, tubal factor is one of the most common causes (25-35%).[4]

The fallopian tube has complex task :

1.pick up the released ovum 2.transport the spermatozoa towards the ampulla , 3.fertilisation support 4.embryo cleavage ,5.zygote transport Tubal infertility includes the changes due to inflammation which affect the fallopian tube and its relation towards the ovary in a way that will affect ovulation, the transport of tbe egg,sperm,or embryo,or alter the function of the tube . the surgeon has to distinguish between the pathological findings according to the site which is affected1.distal tubal obstruction(partial/complete), 2.hydrosalpinx 3.isthmo-cornual block 4.any combination of the previous three categories5.peritubal or peri ovarian adhesions

Diagnostic hysterolaparoscopy (DHL) has emerged as the essential tool for the evaluation of female infertility and is the gold standard investigation for tubal patency. The importance of DHL lies in the fact that it gives a detailed, direct visualization and analysis of the uterine cavity, endometrium, tubal morphology and patency, uterine, ovarian, and adnexal pathology. These pathology findings are often missed in routine clinical examination and ultrasound scan. In addition to diagnosis, DHL also provides the additional benefit of therapeutic interventions in few conditions. This study was undertaken to find out the role of DHL in evaluation of female infertility.

MATERIAL AND METHODS

An observational study was conducted in our tertiary care hospital to which patients were refered with abnormal hsg from periphery hospital for further evaluation and treatment.200 patients were included in the study. Over a period of 2 years from July 2017 to July 2019, infertile couple with primary and secondary infertility aged between 20 and 45 years were included in the study.

In our study for inclusion, as per definition, minimum 1 year of infertility was taken into account. That means, for primary infertility, inability to conceive after minimum of 1 year of unprotected sexual intercourse and for secondary infertility, the same duration and criteria after previous obstetrical event. Hence, the minimum period of infertility was 1 year. However, in our study, there was no upper limit of duration of infertility. Patients with abnormal hysterosalpingogram were also included in the study irrespective of the presence or absence of another male or female known etiology of infertility. It is an established fact that hysterosalpingography (HSG) gives false-positive result of bilateral tubal block due to reflex spasm of the uterine cornu after injection of the dye. We can overcome this fallacy by performing chromopertubation (CPT) Therefore, in our institute, it is a routine protocol to perform DHL and CPT in a diagnosed case of tubal block by HSG. The patients with abnormal HSG findings (unilateral or bilateral tubal block and uterine anomaly) were included and confirmed by DHL.

RESULTS: Of the 200 study population

Table 1 .Age distribution

Age	number	Percentage(%)
20-25	40	20
25-30	50	50
30-35	80	80
35-40	30	30

Of the 200 patients 120 members had primary subfertility and 80 members had secondary subfertility.

On hysteroscopy 140 members had normal findings and abnormal findings were found in 60 members.

Table 2 Abnormal hysteroscopy findings

Abnormality	Number	Percentage
Subseptum	20	10
Polyps	12	6
Septum	8	4
Adhesions	4	2
Myoma	6	3
Bicornuate	8	4
Didelphys	2	1

Table 3 Laproscopy findings

Uterine contour	Number	percentage
Normal	150	75
Fibroids	40	20
Mullerian anamolies	10(bicornuate 5, didelphys 5)	5

Table 4fibroids –location

Location	number	Percentage
Cornu	10	5
Body	10	5
Fundus	10	5
multiple	10	5

Table 5 Laproscopic ovarian findings

Finding	number	Percentage
Normal	60	30
PCOD	60	30
Unilateral simple cysts	50	25
Bilateral simple cysts	6	3
Absent ovary unilateral	4	2
Endometriotic cyst unilateral	10	5
Endometriotic cyst bilateral	10	5

Table 6 Laproscopic tubal findings

Finding	Number	percentage
Bilateral patent	115	57.5

unilateral block	35	17.5
Bilateral block	15	7.5
Unilateral hydrosalpinx	20	10
Bilateral hydro salpinx	10	5
Unilateral absent	5	2.5

Laproscopic findings in the pouch of douglas with a few endometriotic deposits 15(7.5%),and dense endometriotic deposits 15(7.5%).

Peritubal adhesions were found in 20(10%) and adhesions another sites include omental 30(15%) bowel 18(9%) others site 15(7%)

DISCUSSION

Tubal and peritoneal pathology account for the primary diagnosis in approximately 30 to 35% of infertile couples.[5] Jayakrishnan et al.[6] from India detected pelvic pathology in 26.8% cases of infertile patients by laparoscopic evaluation. We got similar result (pelvic pathology: 30 %) in our study.

In addition, endometriosis and adnexal adhesions were the two major abnormalities found among infertile patients in different studies similar to our findings[7,8]

Uterine pathologies are the cause of infertility in as many as 15% of couples seeking treatment and are diagnosed in as many as 50% of infertile patients.[9,10,11] our study showen 25 % incidence of uterine anamolies. Septate uterus was the most common intrauterine abnormality in our study, which was undiagnosed by prior ultrasonography.

Other than septate uterus, the major hysteroscopy abnormalities in our study were myomas and polyps similar to another study.[12]

The incidence of asymptomatic endometrial polyps in women with infertility has been reported to range from 10% to 32%.[13,14] our study showed 6% incidence of endometrial polyps.

In the present study, ovarian pathology was the most common finding 30% greater than 20.8 % of another study.

Tubal pathology contributed to 30-40 % cuase of infertility similar to 42.5 % in our study [14].

CONCLUSION :

Diagnostic hysterolaparoscopy is an effective and safe tool in comprehensive evaluation of infertility, particularly as second stage procedure in final evaluation of cause of infertility. These are correctable abnormalities that are unfortunately missed by routine pelvic examination and usual imaging procedures. Needless to emphasize that, it is a very useful tool that can detect various structural abnormalities in multiple sites like pelvis, tubes, and the uterus in the same sitting in infertile patients. When done by experienced hands and with proper selection of patients, hystero-laparoscopy can be considered as a definitive investigative day care procedure for evaluation of female infertility. This helps in formulating specific plan of management for infertile couple.

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