LAPROSCOPIC FINDINGS IN UNEXPLAINED INFERTILITY

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ABSTRACT

Objective: To determine the frequency of different laproscopic findings in patients with unexplained infertility.

Study Design; Descriptive study

Materials And Methods: This study was carried out at Hayat abad Medical Complex Peshawar Pakistan, a tertiary care hospital, from Jan to Dec 2016.

The study included 120 cases, 64 primary and 56 secondary infertility. Diagnostic laproscopy was performed in all patients for the evaluation of unexplained infertility and findings noted.

Results; Out of 120 cases 64 had primary and 56 had secondary infertility. Among 64 cases of primary infertility 42 had normal findings and 22 were abnormal.Among 56 cases of secondary infertility 28 had normal findings and 28 had abnormal findings.The most common abnormality was bilateral blocked tubes in both types of infertility.Other findings were polycystic ovaries, pelvic inflammatory disease,frozen pelvis ,endometriosis and pelvic T.B.

Conclusion; Tubal disease is the commonest cause of both types of infertility.

Key words; frequency, laproscopy, infertility

INTRODUCTION

Infertility is a global problem leading to personal sufferings and disruption of the family. It is defined as inability to conceive despite regular unprotected sexual intercourse over a specified period of time of one year[1]. World wide more than 70 million couples suffer from infertility[2]. The prevalence of infertility in industrial countries is reported to be 20% while in Pakistan it is about 21.9%[3].

Infertility can be primary (no previous pregnancy) or secondary (have achieved a previous pregnancy) regardless of the outcome of that pregnancy[1].

Infertility can be due to male factor or female factor. Male factor is responsible in 35% of cases of infertility while in the remainder 65% female factor is responsible in 50% of cases and no cause will be identified in the remainder[1]. Etiologies for infertility include anovulatory disorders, tubal factors, endometriosis and pelvic inflammatory disease.[3-4]

Diagnostic laproscopy is a minimally invasive technique that gives a magnified view of internal pelvic organs and provides information on the status of the fallopian tubes, ovaries and uterus.[5] It is considered as a gold standard for the diagnosis of various diseases for example PID, endometriosis,pelvicT.B,ovarian cysts and fibroids.[5] Because of the cost and invasive nature of laproscopy it should not be the first line test in the couple diagnostic evaluation. HSG should be done as initial test for assessing tubal patency when no pelvic pathology is suspected and duration is less than three years while diagnostic laproscopy should be done as a final test in assessing these patients especially when pelvic pathology is suspected[1].

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MATERIALS AND METHODS

Cases were selected from outpatient department of Hayat Abad Medical Complex Peshawar Pakistan. All cases of unexplained infertility who fulfilled the inclusion criteria were admitted for diagnostic laproscopy and dye test.

Inclusion criteria

Patients who had duration of infertility more than 3 years and who did not undergo diagnostic laproscopy previously.

Patients having criteria below were excluded from the study.

Exclusion criteria;

1. Male factor infertility.
2. Patients with associated medical co-morbidity.
3. those who had not done coitus for the last one year.

A predesigned proforma was filled from each patient having detailed history including gynaecological, obstetrical, medical and surgical aspects followed by detailed general physical and systemic

examination. Relevant investigations were advised to the patients including Day-21 serum progesterone in case of regular cycles and complete hormonal profile including serumFSH, LH,TFTand serum prolactin in case of irregular cycles.Husband semen analysis and other investigations were also done as base line and as preop workup like blood group, FBC, urine R/E RBS, HBV, HCV and ECG.Then patients were prepared for the procedure including well informed writen consent and anesthesia opinion for purpose of fitness.

Diagnostic laproscopy was performed by introducing telescope infraumbilically after giving G.A to the patient and whole of the pelvis was inspected for any abnormality through 360 degree and relevant findings were recorded.

In patients having typical appearance of pelvic T.B biopsies from tubercles were taken and free fluid in pouch of douglas was aspirated and sent for culture of AFB. Endometrial sample was also taken and sent for histopathology. Then methylene blue dye was used to check tubal patency. Patients were discharged on next day. All the findings were entered into the proforma and data analysed on SPSS version 10.

Table 1: Age distribution in primary & secondary infertility

Age	primary		secondary	
	Number	%age	Number	%age
Less than 25 years	34	53.1	26	40.6
26 – 35 years	30	46.9	28	43.8
More than 35years	0	0	2	3.1

Table 2: Duration of primary & secondary infertility

Duration	Primary		Secondary	
	Number	%age	Number	%age
3-5years	28	43.8	30	46.9
6-10years	28	43.8	24	37.5
more than 10year	8	12.5	2	3.1

Table 3: Frequency of various findings on Laproscopy statistics

	Laproscopic findings(primary infertility)	Laproscopic findings(secondary infertility)	Infertility duration(in years)	Patient age(in years)
N Valid	64	56	120	120
Missing	56	64	0	0
Mean	2.25	2.21	6.11	26.83
Minimum	1	1	3	20
Maximum	6	5	15	38

RESULTS

Out of 120 cases 64 patients had primary and 56 had secondary infertility. The age distribution, duration of infertility and the various laproscopic findings are given in the table No-1,2,3,4 and 5 respectively.

DISCUSSION

Diagnostic laproscopy is the gold standard procedure for assessing tubal patency. It should be considered earlier in infertility workup in those patients where pelvic pathology is suspected, bilateral blocked tubes on HSG and longer duration of infertility more than 3 years[6]. Female age is the single most important predictor of spontaneous as well as treatment related conceptions. While there is no universally accepted definition of advanced reproductive age 35years is considered as the limit in fertility terms(American society of reproductive Medicine 2006)[7].There is corresponding rise in mean age at which women presented with infertility. In our study 30 patients (46.9%) of primary and 28(43.8%) of secondary infertility presented at age between 26—35years. In case of secondary infertility 2 patients(3.1%) presented after 35 years. These findings are consistent with the findings of Talib[8] who reported early mean age (22.1year) in case of primary infertility and advance age (29.4year) in case of secondary infertility[3].

In our study the most common finding was bilateral blocked tubes in both types of infertility. These findings are consistent with findings from yasir et al from Rawalpindi[9]. Other findings were polycystic ovaries, pelvic inflammatory disease and less common findings were pelvic T.B, frozen pelvis and endometriosis.

The prevalence of polycystic ovaries in asymptomatic patient is thought to be 16—33%[1]. In our study frequency of polycystic ovaries was greater in case of secondary infertility 8 patients (12.5%) compared to primary where its frequency was 9.4%. These findings are unlike the results shown by Nousheen Aziz[10] where the incidence of polycystic ovaries was higher in case of primary infertility and none case found in secondary infertility.

Tubal disease is another important cause of infer-

Table 4: Laparoscopic Findings in Primary infertility

	Frequency	Percent	Valid percent	Cumulative percent
Valid				
Bilat - blocked tubes	8	12.5	12.5	12.5
Normal	42	65.6	65.6	78.1
PCOS	6	9.4	9.4	87.5
PID	2	3.1	3.1	90.6
Pelvic TB	2	3.1	3.1	93.8
Endometriosis	2	3.1	3.1	96.9
Frozen pelvis	2	3.1	3.1	100.0
total	64	100.0	100.0	

Table 5: Laproscopic findings in secondary infertility

	Frequency	Percent	Valid percent	Cumulative percent
Valid				
Bilat-blocked tubes	10	15.6	17.9	17.9
Normal	28	43.8	50.0	67.9
PCOS	8	12.5	14.3	82.1
PID	4	6.3	7.1	89.3
Pelvic TB	2	3.1	3.6	92.9
Frozen pelvis	4	6.3	7.1	100.0
Total	56	87.5	100.0	100.0
Missing system	8	12.5		
Total	64	100.0		

tility. The incidence of tubal factor is 40% and 15-20% in case of secondary and primary infertility respectively[11]. In our study the frequency of bilateral blocked tubes was found higher in both types but slightly greater in secondary infertility (15.6%) than primary (12.5%).

In our study the frequency of pelvic inflammatory disease was higher in secondary (6.1%) compared to primary infertility (3.1%). Same results have been reported by Talat from Peshawar[12].

In our study the frequency of endometriosis was 3.1% and none case found in secondary infertility.

CONCLUSION

Tubal disease is the most common cause of both types of infertility followed by polycystic ovary disease. In order to overcome the infertility issues further studies foucssing particularly at the etiologies of tubal disease need to be conducted.

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