ORIGINAL ARTICLE

Frequency of Common Infertility Causes in Female Patients Attending A Military Based Hospital

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ABSTRACT

Aim: To determine the frequency of various risk factors of primary infertility in infertile females.
Methods: We included 100 patients of primary infertility who presented in Military Hospital Rawalpindi from Jan-2016 to May-2017 in this study. Data regarding demographic information, menstrual history, medical records was taken. All patients were admitted one day before surgery and at night were kept NPO (no per oral), and in the next morning diagnostics laparoscopy was performed. All procedures were done under G/A. For qualitative variables frequency and percentages were calculated and mean±S.D. were calculated for quantitative variables.
Results: Mean age of patients was 27.15±7.68 years. Most of the patients (41%) were in age group 17-25 years, 17% patients were in age group 26-30 years, while 20% patients were in age group 36-40 years. Out of 100, 31% patients were asymptomatic, 22% presented with irregular cycle, 16% with abnormal discharge, and 14% patients with dysmenorrhea. On diagnostic laparoscopy, tubal blockage was found in 41% patients, pelvic adhesions in 13%, endometriosis in 11%, normal findings in 10%, PCOD in 9%, and other uterine anomalies in 1% patients.
Conclusion: Tubal blockage, pelvic adhesions and endometriosis were common lesions responsible for infertility
Keywords: Primary infertility, tubal blockage, pelvic adhesions.

INTRODUCTION

Infertility has affected millions of people and is a major risk factor psychological illness in married couples.[1] Infertility is defined as failure to conceive after one year of regular unprotected sex.[2] It is earnest desire of all couples to have children but in some cases it is not possible without medical help. Infertility affects 8-15% of all people in their fertile age.[3] This incidence varies from country to country and even in different regions within the country. The reported infertility in Pakistan is 21.9%, out of which 3.5% have primary causes and 18.4% have secondary causes[4]. A study conducted in Pakistan by Shaheen et al. have reported 7% prevalence of primary infertility in Pakistani population[5].

Various common causes of infertility are ovulatory, fallopian tube disorders, endometriosis, sperm-related or chromosomal abnormalities and unexplained factors[6,7]. The cause may be primary (in this case a woman has never conceived before) or secondary (in which the woman conceives before irrespective of the pregnancy outcomes)[8].

Diagnostic laparoscopy (DL) is a routinely used procedure to diagnose various pregnancy related disorders such as fallopian tube, ovaries and uterus. It is a gold standard test for detailed examination of these organs.[9] The aim of this study is to determine the frequency of various risk factors of primary infertility in infertile females.

METHODS

We included 100 patients of primary infertility who presented in Military hospital Rawalpindi from Jan-2016 to May-2017 in this study. The study was cross-sectional in nature. All patients signed a written informed consent.

Data regarding demographic information, menstrual history, medical records was taken. Blood samples were sent for endocrines profiles such as FSH, LH and TSH. Male semen analysis was also done and if male factor was found those couples were excluded from analysis. Females who underwent previous laparoscopy or having any contra-indication to anesthesia were excluded.

All patients were admitted one day before surgery and at night were kept NPO (no per oral), and in the next morning laparoscopy was performed. All procedures were done under general anesthesia. Sub-umbilical incision was given to introduce laparoscope. Through assessment of genitalia was done and findings noted. If there was any ascitic fluid was there, it was aspirated and sent for laboratory testing. After laparoscopy peritoneal lavage was done using 0.9% normal saline. In patients with suspicion of tuberculosis, AFB cultures were sent. All laparoscopy findings on a pre-designed Proforma.

Data analysis was manually, for qualitative variables frequency and percentages were calculated and mean and S.D. were calculated for quantitative variables.

RESULTS

Mean age of patients was 27.15±7.68 years. Most of the patients (41%) were in age group 17-25 years, 17% patients were in age group 26-30 years while 20% patients were in age group 36-40 years. Mean duration of marriage was 4.1±1.9 years (Table 1).

Regarding presenting symptoms,31% patients were asymptomatic, 22% with irregular cycle, 16% with abnormal discharge, 14% patients with dysmenorrhea, 7% patients with pelvic pain and 10% patients were having abnormal hair growth (Table 1). On laparoscopic findings, tubal blockage was found in 41% patients, pelvic adhesions in 13% patients, endometriosis in 11% patients, normal findings were found in 10% patients, PCOD in 9% patients, and fibroids in 7% patient. While 5% patients were having other anomalies (Table 2).

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Table 1: Demographic Variables.

Variable	Value
Age groups (%)	
17-25 Years	48
26-30 Years	17
30-35 Years	15
36-40 Years.	20
Duration of Marriage (Years)	4.1±1.9 Years
Presenting Symptoms (%)	
Asymptomatic	31
Irregular cycle	22
Discharge	16
Dysmenorrhea	14
Pelvic pain	7
Hair growth	10

Table 2. Laparoscopy Findings.

Laparoscopy Findings	Value
Tubal blockade	41
Pelvic adhesions	13
Endometriosis	11
Normal findings	10
Polycystic ovarian disease (PCOD)	09
Fibroids	07
Simple cyst	04
Tuberculosis (T.B)	04
Uterine anomalies	01

DISCUSSION

Infertility is one the major life disturbing problems in community. A report published by UNICEF Pakistan in 2009, reported 3.9% frequency of infertility in Pakistan.[10] In Pakistan, 40% of infertile couples do not attend any gynecological clinic for treatment, mainly due to lack of knowledge or awareness regarding infertility problems[11].

Diagnostic laparoscopy has become a modality of choice for diagnosis of various gynecological problems including causes of infertility. In present study, we included 100 patients of primary infertility in this study. The common presenting symptoms in our study were; irregular cycle in 22% patients, abnormal discharge in 16%, dysmenorrhea in 14% and 31% patients were asymptomatic. While remaining symptoms were found in less frequency. In the study of Ara et al. common presenting symptoms were; irregular cycle in 21.1% patients, abnormal discharge in 15.79% patients, dysmenorrhea in 15.79% patients, while 36.8% patients were asymptomatic in their study[12].

On laparoscopic findings in our study, tubal blockage was found in 41% patients, pelvic adhesions in 13% patients, endometriosis in 11% patients, normal findings were found in 10% patients, PCOD in 9% patients, and fibroids in 7% patient. A study conducted in Iran found ovulatory disorders in 50.3% females, fallopian tube disease in 15.4% females, male factor in 11.4% couples.[13]A study conducted in Pakistan found ovulatory disorders in 22.09% females, fallopian tube disease in 15.72% females, endometriosis in 6.5% females and male factor in 21.91% couples[5]. While another study from Pakistan found tubal blockage in 44.1% patients, pelvic adhesions in 24.7% patients, endometriosis in 16.1% patients and normal findings in 27.4% patients[14].

In our study, tuberculosis was diagnosed in 4% patients. Ara et al found tuberculosis in 15.8% patients[12]. This frequency was higher as compared to our population. While Yasir et al. found tuberculosis in 3.2% patients, this frequency is comparable to our study population.[14]other studies have also found similar findings as that of our study[15,16].

So studies conducted in different countries and even in different regions have reported varying prevalence of risk factors of primary infertility. So there is a need to conduct a whole country based research to determine the overall prevalence of risk factors of primary infertility in Pakistani population.

CONCLUSION

Tubal blockage, pelvic adhesions and endometriosis were common lesions responsible for infertility in our study.

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