

SOME EPIDEMIOLOGICAL ASPECTS OF SUBFERTILE WOMEN WHO UNDERWENT LAPAROSCOPY

Far/ana Deeba¹, ABM. Muksudul Alam², Nilufar Nasrin Ava³
Md. Rafiqul Islam⁴, Abdul Matin⁵, Rita Khan⁶

Abstract

Objective: *Epidemiological aspects of subfertile women underwent laparoscopy. Place of Study: This retrospective study was done in the Obstetrics and Gynaecology Department of Bangladesh Medical College hospital.*

Duration: *July 2003 to June 2004.*

Study Population: *Women suffering from primary and secondary subfertility, who had undergone laparoscopy. Total 61 patient had laparoscopy for evaluation of subfertility. No documents were available for 6 patient and they were excluded from the study.*

Result: *The study group comprises 55 cases of which 67.37% was of primary and 32.73% was of secondary subfertility. Professional women group (56.4%) was higher than housewife group (43.6%). In this study 11.11% had history of spontaneous abortion and 33.33% had history of MR. In this study menstrual period was within 7 days in 70.9% cases and in 10.9% cases were more than 7 days, in 14.54% cases menstrual cycle was more than 35 days and in 3.64% cases were less than 22 days. 40% of the patient did not use any contraceptive*

Conclusion: *The number of subfertility visits' has increased in the last few years because of increasing awareness for available services and option for resolving subfertility. Prompt investigation and appropriate referral allow a couple to receive advice and treatment to help them reach their goal*

Introduction

Sub fertility is defined as the inability of a couple to achieve conception after one year of unprotected coitus¹. Approximately 90% of couples with unprotected intercourse will conceive within 1 year². Primary sterility is an absolute state of inability to conceive whereas secondary sterility is the same state developing after an initial phase of fertility³. Childlessness may be a tragedy to the married woman, and can be a cause of marital upset as well as of personal unhappiness and ill health. The prevalence of sub fertility ranges from 7-28% depending on the age of the woman. A primary diagnosis of a male factor is made about 30% of infertile couples. An abnormality in the woman is responsible for remaining 40-60% of cases².

Correspondence:

Dr. Far/ana Deeba
Nayatola G.O.D Dhaka, Bangladesh.

About 15% of normal fertile couples require more than 1 year to conceive and some of the "unexplained" causes of subfertility may simply be a part of this normal 15%⁴. The success rates of treatment for subfertility depend on a variety of factors including cause of subfertility, woman's age, duration of subfertility and availabilities of modern facilities of investigation and treatment⁵. The number of subfertility visits has increased in the last few decades. The reasons for the increase in attention given subfertility are multiple. Couples are less willing to simply accept childlessness and are increasingly aware of the available services and options for resolving subfertility. Increasing awareness of the psychological consequence of the problem led to increasing level of sophistication in evaluation and treatment of subfertility. When an anticipated conception fails to occur in a timely fashion and a couple begins to consider subfertility as a diagnosis their reactions can be intense and terrifying. Self-images are threatened, sexuality can be affected, and feelings of adequacy may be destroyed; feeling of loss of control, anger, guilt, shame, and resentment can alter behaviour and become contributing factors, to turn a relationship into negative consequences. As an individual or couple actually confronts subfertility they may progress through stages, including denial, anger, grief, and resolution. A recognition of these stages may assist the practitioner in providing appropriate support and counselling. Treatment cycles often begin with high hopes and expectations and end with disappointment.

1. Dr. Karzana Deeba, MBBS.FCPS. Medical Officer. Nayatola G.O.D Dhaka, Bangladesh.

2. Dr. ABM. Muksudul Alam. FCPS. MD. Principal Shahid Shurawardy Medical College and Hospital, Dhaka.

3. Dr. Nilufar Nasrin Ava, FCPS. Junior Consultant of Obstetrics & Gynaecology, Dhaka Medical College and Hospital.

4. Dr. Md. Rafiqul Islam, DCH. M.Phil(Int.Health). Assistant Professor. Pediatrics. Shahid Shurawardy Medical College and Hospital, Dhaka.

5. Dr. Abdul Matin MBBS.MD. Assistant Professor. Pediatrics. Shahid Shurawardy Medical College and Hospital, Dhaka.

6. Dr. Rita Khan. MBBS, M.P.H. M.O. NICR&H Mohakhali. Dhaka.

Laparoscopy is a transperitoneal endoscopic technique that provides excellent visualization of the pelvic structures and permits the diagnosis and some times treatment of gynaecological disorders. It detects some pathology in otherwise tested normal woman, tubal morphology and patency by dye testing, ovulation by direct viewing corpus luteum during secretory phase of cycle, pre-operative selection for tuboplasty operations, post-tuboplasty follow up, other pelvic diseases^{6,7}. Investigation of subfertility is not completed without laparoscopy. In our country use of laparoscopy is limited to a few teaching hospitals. Philip Bozzini, in 1805 attempted to observe the interior of the urethra with a simple tube and candle light⁸. In 1877 Nitze added a lens system. Edison in 1880 the added incandescent lamp to the endoscope. Thus the use of multiple telescope lenses were possible⁹. In 1901, professor Georg Kelling reported his examination of the stomach and esophagus¹⁰.

Material and Methods

This retrospective study was done in the Obstetrics and Gynaecology department of Bangladesh Medical College hospital during the period from July 2003 to June 2004. Women suffering from primary and secondary subfertility, who had laparoscopy after giving written consent, during the period from July 2003 to June 2004 with normospermic husband were included in this study. During this one year period, there were total 61 patient had laparoscopy for evaluation of subfertility. No documents were available for 6 patient and they were excluded from the study. Women with a) Haemodynamic instability or coagulopathy b) Chronic obstructive airway disease c) Known massive intra-abdominal adhesion, d) Suspected malignancy were excluded from the study.

Consent was taken from the department and hospital authority for analysing available documents related to laparoscopy. Data was collected in a pretested semi structured questionnaire from patient history sheet and operation theater notes. Data was analyzed by using Micro-Soft Excel statistical programme.

Results

The study group comprises 55 cases of subfertile woman in which 37 patient (67.37%) of Primary subfertility and 18 patient (32.73%) were of Secondary subfertility (Table I) Primary and Secondary subfertility were high in the 26-30 years age group but in the 20-25 years age group primary subfertility were high. (Table II) Among the studied women, 24 (43.6) patients were house

Table-I

Types of Subfertility (N-55)

Types Subfertility	No. of Patient	Percentage
Primary Subfertility	37	67.37
Secondary Subfertility	18	32.73

Table- II: Incidence according to age distribution (N-55)

Age	Cases in primary subfertility	Percentage (%)	Cases in secondary subfertility	Percentage(%)
20-25	13	25.45	1	1.82
26-30	16	29.09	14	25.45
31 -35	7	12.73	2	3.64
36-40	1	1.82	0	0

Table-III : Profession (N-55)

Occupation	No. of cases	Percentage (%)
House wife	24	43.6
Professional personnel	31	56.4

Table- IV: Obstetric History (N-33)
(Incise of secondary subfertility)

Obstetrics History	No of Patient	Percentage (%)
Still birth	1	5.56
Spontaneous abortion	2	11.11
MR	6	33.33
Ectopic pregnancy	1	5.56
Vaginal delivery	5	27.78
LUCS	3	16.67

Table-V: Menstrual History (N-55)

(1) Menstrual period	No. of cases	Percentage (%)
Within 4-7 days	39	70.9
More than 7 days	6	10.9
Less than 4 days	10	18.2
(2) Menstrual cycle		
22 -35 days	45	81.81
More than 35 days	8	14.54
Less than 22 days	2	3.65
(3) Amount of bleeding		
Normal	44	80
Excessive	6	11
Scanty	5	9

(4) Other complain		
Menorrhagia	4	7.27
Polymenorrhoea	1	1.82
Amenorrhoea	2	3.65
Dysmenorrhoea	11	20
Metrorrhagia	1	1.82
Inter Menstrual bleeding	1	1.82
(5) No complain	35	63.63

Table- VI Past Contraceptive History (N-55)

Contraceptive method	No. of cases	Percentage
No method used	22	40.00
IUCD	4	7.27
Oral Pill	13	23.64
Barrier Method	16	29.09
Total	55	100.00

wife, 31 (56.4) patient were service holder they were teacher, medical personnel, other technical personnel, lawyer and other professional personnel (Table III). Secondary subfertility had history of 5.56% still birth, 11.11% had spontaneous abortion, 33.33% had M. R., 5.56% had Ectopic pregnancy, 27.78% had vaginal delivery, 16.67% had L.U.C.S (Table IV). In this study menstrual period was within 7 days 70.9% and more than 7 days was 10.9%. Menstrual cycle 22-35 days in 81.81% more than 35 days in 14.54% less than 22 days in 3.64%. In this study 7.27 % patient complains of menorrhagia, 1.82% polymenorrhoea, 3.64% amenorrhoea, 20% dysmenorrhoea, 1.82% metrorrhagia, 1.82% inter menstrual bleeding and 63.63% patient having no complain. In this study normal amount of bleeding was 80%, excessive in amount 11% and scanty 9% cases. (Table V) Table VI shows that 40% of the patient did not used any contraceptive other 60% used contraceptive among them barrier method was more frequent.

Discussion

A laparoscopy and dye ("lap and dye") test is the most reliable, albeit expensive, tool used to diagnose sub fertility. Morphological abnormalities of the fallopian tubes can be seen directly, and the general pelvic appearance may give some clue to likely cause of any abnormalities and laparoscopic treatment of early endometriosis improved fertility prospects by 13% over the next nine months 11 In this study, there were more cases of primary subfertility (67.3%) and than the secondary subfertility (32.7%). This was due to the fact that people are now becoming conscious and they come for treatment earlier.

More primary subfertility (25.45%) cases were coming for treatment in the 20-25 years age group than

secondary subfertility (< 2%) cases. But in the 26-30 years age group treatment seeking behavior was almost equal between the primary subfertility (29%) group and secondary subfertility (25.45%) group. An inverse relationship exists between fecundability and the age of the woman. The decline in fecundability begins in the early thirties and progresses rapidly in the late thirties and early forties. Couple in some cases have voluntarily delayed childbearing in favour of establishing career and may experience an age-related decline in fertility. Among the treatment seekers professional women group (56.4%) was higher than housewife group (43.6%). Probably this was due to financial solvency, decision making capacity, more information availability, more awareness. This was because, working women had age related decline in fertility and more woman from this group came to visit gynaecologists. Past obstetric history is important in cases of secondary subfertility. MR. Abortion, Puerpeal sepsis, may causes tubal damage after pelvic infection. In this study 11.11% had history of spontaneous abortion and 33.33% had history of MR. In some cases the choice of prior contraceptive method may have contributed to subfertility. as with the use of some intrauterine devices (IUDs). Oral pill may cause post-pill amenorrhoea by suppressing the hypothalamo-pituitary axis. Aetiology of subfertility varies between countries and even regions and a knowledge of local disease pattern is essential, if appropriate investigations are to be performed. Regular menstrual cycle usually indicates regular ovulation which is a basic needs for achieving fertility. Generally failure to ovulate is associated with amenorrhoea. But regular anovulation in menstrating woman can occur - may be a feature of hypothalamic anovulation, hyperprolactemia due to drugs, pituitary adenoma or primary hypothyroidism. Polycystic ovaries. subclinical adrenal failure and diabetes mellitus , luteinized unruptured follicles and luteal phase deficiency. In this study menstrual period was within 7 days in 70.9% cases and in 10.9% cases more than 7 days, in 14.54% cases menstrual cycle was more than 35 days and in 3.64% cases less than 22 days.

The problem should be investigated first by review of historical factors, including the onset of menarche; present cycle length (intermenstrual interval); and presence or absence of premenstrual symptoms (mollimina), such as breast tenderness, bloating or dysmenorrhea. Signs and symptoms of systemic disease, particularly of hyperthyroidism or hypothyroidism, and physical signs of endocrine disease (eg, hirsutism. galactorrhea. and obesity) should be noted. The degree and intensity of exercise, a history of weight loss, and complaints of hot flushes all are clinical clues to possible endocrine or ovulatory dysfunction.

Conclusion

The number of subfertility visits has increased in the last

Prompt investigation and appropriate referral allow a couple to receive advice and treatment to help them reach their goal of a pregnancy more quickly, and may alleviate some of the distress associated with subfertility. Doctors in primary care can have an invaluable role in starting this process and providing support during further investigation and treatment.

Investigations should follow a systematic protocol designed to identify:

- Tubal or uterine abnormalities
- Anovulation
- Impaired spermatogenesis.

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