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PJBS

ISSN 1028-8880

Pakistan Journal of Biological Sciences

ANSInet
Asian Network for Scientific Information
308 Lasani Town, Sargodha Road, Faisalabad - Pakistan

Pakistan Journal of Biological Sciences 13 (18): 911-915, 2010
ISSN 1028-8880

Features of Premature Ejaculation in Infertile Men

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Abstract: Premature Ejaculation (PE) is the most common form of sexual dysfunction and is one of the causes of male factor infertility. The aim of this study was assay of frequency and features of PE in a group of infertile men. This cross-sectional study was carried out since December 2006 to January 2008 on a sequential sample of 300 male patients complaining of infertility referring to the only infertility research center of Tabriz al-Zahra hospital. Data were collected by a designed questionnaire in which there were questions about age, age of marriage, history of sexual transmitted disease, drug use, previous sexual contacts, systemic diseases, masturbation, erectile dysfunction and frequency of intercourse. The mean age of studied patients was 30.39±5.76 and 43% of patients had PE, that in 74.4% primary PE and in 25.6% secondary PE seen. The most common form of ejaculation latency time was about less than 1 min that was seen in 51.2% of patients with PE. Mean of masturbation times was 5.13±3.19 times per month, and there is significant relation between the age of patients and type of PE, ($p = 0.001$) and ejaculation latency time and type of PE ($p = 0.035$). The high frequency rate of PE in Iranian men with complaint of infertility and also relatively lower age of these patients reflects the necessity of attention and management of this imperative psycho-organic disorder.

Key words: Infertility, premature ejaculation, sexual dysfunction, intercourse, erectile dysfunction

INTRODUCTION

The management of infertility problems has become an increasingly important part of health services in recent decades (Mathur *et al*., 2010; Ghasemzad *et al*., 2007). Infertility is seen in 15% of couples while in 40% of infertile couples a male factor is responsible that necessitate the synchronous evaluation in both (Tanagho and McAnninch, 2004). Premature Ejaculation (PE) is the most common type of sexual dysfunction in men but the certain cause of that is unknown (Paick *et al*., 1998). Global prevalence of PE is about 30% and differs in various social, economic and geographic populations.

Ejaculation is under central and peripheral control (Rowland *et al*., 1993). Recent studies showed that men with PE have a hypersensitive penile skin (Xin *et al*., 1996). Any ejaculatory latency less than 2 min suggests a possible PE diagnosis. There are two types of PE: -Primary or lifelong that the patient has had a lifelong history of PE not specific to one partner which has multiple causes, 2-The secondary or acquired in that PE developed recently in specific situations and relates with performance anxiety.

American Urological Association (AUA) suggested that diagnosis of PE must be based up on sexual observation (Shabsigh, 2006; Althof *et al*., 2000). Three essential components for the diagnosis of PE are short ejaculatory latency, lack of control and sexual dissatisfaction (Broderick, 2006; Hellstorm, 2006).

Although patients with PE were treated by multiple pharmacologic therapies and psychological behavioral methods, in most cases they were not satisfied (Henry and Morales, 2003). Infertility is defined as inability to achieve conception within 1 year (Moreau *et al*., 2010). Among various causes of infertility, premature ejaculation is one that contains 5% of male factors (Tanagho and McAnninch, 2004). PE that occurred before vaginal peneterence, could be counted as a male factor infertility (Tanagho and McAnninch, 2004).

Since there are no reliable information about Frequency and Features of PE in our region (Tabriz) and due to behavioral and religious reasons, the (PE) problem can not be assayed in general population. Regarding these problems we have done our study on a sample population of infertile men.

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MATERIALS AND METHODS

This cross-sectional study was carried out since December 2006 to January 2008 on a sequential sample of 300 male patients complaining of infertility referring to the only infertility research center of Tabriz Al-zahra hospital.

Data were collected by a designed questionnaire in which there were questions about age, age of marriage, history of Sexual Transmitted Disease (STD), drug use, previous sexual contacts, systemic diseases, masturbation, erectile dysfunction, frequency of intercourse. In first visit the patient was also asked to measure and report the ejaculatory latency time with clock accurately plus bringing result of spermogram in next visit to the urologist. Faculty members of Tabriz University of medical science revised the used questionnaire in order to validate the content of it for our study. For proper explanation to patient's wife and achieving the wives points of view about satisfaction one of our midwife colleagues collaborated in all cases interviews.

Patients with pure female factor infertility were excluded. Twenty seven patients refused the program and didn't report the latency time and didn't answer to questions and replaced with next patients.

The most widely used reference values for human semen and sperm variables were developed by the World Health Organization (WHO) to help assess the fertility status of men. WHO reference values of spermogram was used in this study (Mikhailichenko *et al*., 2008). In this study ejaculatory latency time shorter than 2 min defined as PE (Tanagho and McAnninch, 2004).

Medical ethics considerations: Each patient gave informed written consent to participate in the study, which was approved by Tabriz University of Medical Science Ethics Committee. The patients information was kept secret according to privacy limits law and all the files were labeled by numbers instead of names.

Statistical analysis: The data were subjected to statistical evaluation, using SPSS 11, with descriptive statistics (mean, median, standard deviation [SD]) being determined for all variables. In our comparisons t-tests and Chi-square tests were used for quantitative and qualitative variables. Correlations were assessed using Pearson correlation coefficients. The p-values less than 0.05 were considered significant

RESULTS

The mean age of subjects was 30.39±5.76 years (range, 20 to 57 years). Mean age of marriage was 25.76±4.66 (range, 17 to 53 years) mean time interval between marriage and refer for infertility was 31.61±29.97 months (range, 20 to 240 months). Thirteen patients (4.3%) have normosperm but with only slight sperm morphology disorder and 287(95.7%) patients had abnormal sperm analysis with multiple sperm disorders.39 (13%) patients had history of involvement by system disease . Two hundred thirteen (71%) patients had positive history of masturbation with an average of 4.7±2.74 times per month, while 87 (29%) patients had no history of that. In the studied population 129 (43%) patients had PE in that (Table 1).

Table 2 the history of various diseases in studied population demonstrated. According to our findings 261

Table 1: General characteristics of the patients with infertility

Characteristics	Values
Number	300
Age (year)	30.39±5.76 (range, 20 to 57)
Mean age of marriage (year)	25.76±4.66 (range, 17 to 53)
Mean time interval between marriage and refer for infertility (m)	31.61±29.97 (range, 20 to 240)
Normosperm with only slight sperm morphology disorder	13 (4.3%)
Abnormal sperm analysis with multiple sperm disorders	287 (95.7%)
Positive history of masturbation	213 (71%)
Average times of masturbation per month	4.7±2.74
Premature ejaculation (+)	129 (43)
Premature ejaculation (-)	171 (57)

Table 2: History of various diseases in studied population

Type of disease	Count	Percent	True percent	Cumulative percent
Without disease	261	87.0	87.0	87.0
History of surgery	3	1.0	1.0	88.0
Auto immune	4	1.3	1.3	89.0
Gastro intestinal	3	1.0	1.0	90.3
Neurologic	3	1.0	1.0	91.3
Psychologyic	11	3.7	3.7	95.0
Urologic	5	1.7	1.7	96.7
Cardiovascular	3	1.0	1.0	97.7
Endocrine	2	0.7	0.7	98.3
Anemia	2	0.7	0.7	99.0
Asthema	1	0.3	0.3	99.3
Infectious disease	2	0.7	0.7	100
Total	300	100.0	100.0	

Table 3: Analysis of different characteristics of patients with and without premature

	PE positive (129 patients, 43%)		PE negative (171 patients, 57%)		
Characteristics	+	-	+	-	p-value
Age	30.8±5.1		31.3±6.23		0.4582
History of sexual contact	28 (9.3)	101 (33.7)	40 (13.3)	131 (43.7)	0.73
Systemic disease	15 (5)	114 (38)	24 (8)	147 (49)	0.53
History of masturbation	96 (32)	33 (11)	117 (39)	54 (18)	0.25
Drug history	14 (4.7)	115 (38.3)	24 (8)	147 (49)	0.41
Erectile days function	31 (10.3)	98 (32.7)	45 (15)	126 (42)	0.65
Intravaginal ejaculation	108 (83.7)	21 (16.3)	171 (57)	-	0.05
Frequency of intercourse					
1-2 time in month	4 (1.3)		15 (5)		>0.05
1-2 time in week	70 (23.3)		89 (29.7)		>0.05
3-4 time in week	46 (15.3)		60 (20)		>0.05
> 4 time in week	9 (3)		7 (2.3)		>0.05

Table 4: Characteristics of the patients with premature ejaculation (PE) (primary and secondary) (n =129)

Characteristics	Primary PE	Secondary PE	p-value
Number	96 (74.4%)	33 (25.6%)	-
Age (year)	29.91±4.62	33.39±5.59	0.001
Ejaculatory latency	1.67±0.30	1.18±0.41	0.03

(87%) of the individuals did not have any major disease in their past medical history (Table 2).

Mean age of patients with PE was 30.8±5.1 (range, 20 to 39 years) and mean age of patients without PE was 31.3±6.23 (range, 20 to 57 years) (p = 0.4582). Hundred eight (83.7%) patients with PE experienced intravaginal ejaculation and 21(16.3%) patients with PE experienced extravaginal ejaculation. 171(57%) patients without PE experienced extravaginal ejaculation. In this study there is no significant relation between PE in infertile men and history of sexually transmitted disease (STD), previous sexual contact, systemic diseases, history of masturbation, age of marriage, time interval to refer and history of medical treatment (Table 3).

From the patients with PE, 96(74.4%) of patients were from primary PE type and 33(25.6%) patients had secondary type of PE. There is significant relation between the age of patients with primary and secondary types of PE so the patients with primary PE had lower mean age (p = 0.001) and in patients with primary PE the mean time of ejaculatory latency was 1.67±0.30 and in patients with secondary PE mean time of ejaculatory latency was 1.18±0.41 (p = 0.03) (Table 4).

DISCUSSION

PE is ejaculation happening without control, in a while after vaginal penetration and before the subject wishes it, results in noticeable distress or interpersonal complicatedness (Palmer and Stuckey, 2008). In this study we evaluate the frequency and some features of PE in a population of infertile men. Complaint of (PE) and its consequences are culture-dependent and selected patients of this study were enough motivated and comfort in answering the question. Frequency of PE in this investigation was 43%, however in a meta nalysis study by Montorsi (2005) global prevalence of PE was 30%. Frequency of PE in this study is 43% and in study of laumann in East Asia, South and central America, Northern Europe, southern Europe were 29.1, 28.3, 20.7 and 21.5%, respectively (Laumann *et al*., 1999; Nicolosi *et al*., 2004; Porst, 2009) and in United States according to the Rowland's study was 32.5% (Rowland *et al*., 2004).

Mean age of the patients with PE in this study was 30.8±5.1, however another report of Iran mentioned the mean age of PE 34.1±9.1 (Zargooshi, 2009). Mean age of PE in Iranian investigations is lower than the reports of western countries which mentioned the occurrence of PE in 4th decade of life (Hartmann *et al*., 2005).

Donatucci (2006) assessed the role of systemic diseases in etiology of PE and relation of PE with hyperthyroidism and previous sexual contacts emphasized but in this study we cannot show the relation of PE with previous sexual contact presumably because of ashaming of some of patients in informing us about their previous sexual contacts, or because of fear or concern to get informed their wives. In this study there was no hyperthyroid patient but one of patients was under treatment for hypothyroidism with levothyroxin and PE in this patient may be related with use of drug.

In this study the most common form of PE was intravaginal and PE occurred in lower than 2 min after intromission that correlate with the study of Hartmann and colleagues (Hartmann *et al*., 2005).

The most common ejaculatory latency time in our patients with PE (51.2%) was 1 min that correlates with waldinger's multinational population survey (Waldinger *et al*., 2005) that says IELT (intravaginal-ejaculation-latency time) less than 1 min is a criteria for diagnosis of PE and IELT between 1-1.5 min is a criteria for possible PE and this correlates with the study of

Yuan *et al.* (2004) and Patrick *et al.* (2005). Zargooshi (2009) in a study of 3,458 Iranian patients presented with self-diagnosed PE demonstrated that IELT ≤1 min and ≤2 min were 59.5 and 75.5%, respectively. Serefoglu *et al.* (2009) in an investigation from Turkey reported the percentage of men reporting IELTs of <1, 1-<2 and >2 min were 20 (57.1%), 11 (31.5) and 4 (11.4%)

Yuan *et al.* (2004) in china studied the sexual function of patients with PE and control group and they find no significant difference in age, duration of marriage and educational level between patients with PE and control group In Yuan's study mean ejaculatory latency in patients with PE was 1.6±1.2 min. In this study in comparison mean age of patients with PE was 30.8±5.1 and mean age of patients without PE was 31.3±6.23 years that there is no significant difference between two group. In this study mean ejaculatory latency in all of patients with primary and secondary PE was 1.48±1.14 min that is slowly lower than time of the Yuan's study. A five-nation survey to assess the distribution of the intravaginal ejaculatory latency time among the general male population IELT had a positively skewed distribution, with a geometric mean of 5.7 min and a median of 6.0 min (Waldinger *et al.*, 2009).

In study of Patrick *et al.* (2005) in USA features of PE with use of DMSIV-TR were assessed and IELTS in patients with PE was 1.8 min (Patrick *et al.*, 2005). That accommodate with this study that our mean IELT was 1.48±1.14 min.

In this study there was no relation between systemic disease and PE, which correlates with study of Fasolo *et al.* (2005).

Gonen*et al.* (2005) in Turkey assessed the relation between PE and chronic pelvic pain syndrome by questionnaire in 66 patients. They define the PE as ejaculation less than 2 min and reported that in 51(77%) patients there was PE. In our patients PE were seen in 43% and it seems that the PE in chronic pelvic pain syndrome is higher.

Althof (2006) in USA studied the prevalence and features of PE in dialytic patients. Mean age of patients was 45.9 years that is higher than our and this is because that renal disorders occurres in older ages and infertility occurres in lower ages. In another study in 148 dialytic patients with use of International impotence and Erectile functions (IIEF-S) we reported the frequency of PE 33.1% that correlate with global prevalence but in present study the frequency of PE was higher (Hassanzadeh *et al.*, 2006).

The age of the patients with primary PE in this study was lower than the patients with secondary PE. Secondary PE is an explicit disease which can be due to a variety of causes--physical, pharmacological and psychological (Williams, 1984). Higher age of secondary PE might be due to longer time required for initiation of effective factors in secondary PE. The shorter ejaculatory latency in the patients with secondary PE probably reflects more severity of secondary PE in comparison to primary PE. Organic cause in the great majority of secondary PE might be a reason which explains the differences in ejaculatory latency between two groups (Godpodinoff, 1989).

CONCLUSIONS

The high frequency rate of PE in Iranian men with complaint of infertility and also relatively lower age of these patients reflects the necessity of attention and management of this imperative psycho-organic disorder. Proper medical and psychological treatments may improve PE in these patients which could result in interpersonal satisfaction and also better results for treatment of infertility, however other studies should be performed with a control group of fertile men to achieve more reliable outcomes.

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