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Efficiency of blindfolded antibiotic treatment of premature ejaculation in patients with type III prostatic inflammation

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Özet

Cinsel aktif erkeklerin %30-40'ını etkilediği için erken ejakülasyon erkeklerde en sık görülen cinsel işlev bozukluğudur. Çeşitli çalışmalar prostat inflamasyonu ve kronik bakteriyel prosttait ile erken ejakülasyon arasında ilişki olduğunu göstermiştir ki bu durum etkilene olguların %50'sinden fazla bulunmaktadır. Bu çalışmalar ayrıca prostatta inflamasyonu olan olguların %85'inden fazlasının erken ejakülasyon grubunda kronik prostatite bağlı bu bozukluğa yol açtığını göstermişlerdir. Bu ilişki belirgin olmasına rağmen kronik prosttaitli olgularda antibiyotik tedavisinin erken ejakülasyona olan etkileri yakın zamanlarda araştırılmaya başlanmıştır. Bu çalışmada sekonder erken ejakülasyon tanısı alan 36 erkek olgu değerlendirilmiştir. Olguların hiçbirinin erektil işlev bozukluğu yoktu. Bütün olgularda intravajinal ejakülatuvar latens zamanı 2 dakikanın altındaydı. Prostatik inflamasyon için her büyük büyütmede 10'un üzerinde lökosit olması anlamlı olarak kabul edildi. Toplam 36 olgunun 22'sinde prosttaik sekresyonda 10 ve üzerinde lökosit saptandı. Geri kalan 14 olgu kontrol grubu olarak kabul edildi. Bir aylık antibiyotik tedavisinin sonunda çalışma grubundaki olguların %78'inde son üç ilişkinin değerlendirilmesi ile intravajinal ejakülatuvar latens zamanının 2 dk ve üzerinde olduğu saptanırken diğer grupta benzer düzelme olmadığı görüldü. Hastaların hiçbirinde antibiyotik kullanımına bağlı yan etki bildirilmedi. Çalışmamız erken ejakülasyonu olup aylık uzun dönem antibiyotik tedavisinden fayda gören olguların prostatik inflamasyon için mikroskop altında değerlendirilmeleri gerektiğini ortaya koymaktadır.

Anahtar Kelimeler: Cinsel işlev bozukluğu, erken ejakülasyon, kronik prostatit, antibiyotik

Abstract

The most common male sexual disorder is premature ejaculation as it affects 30-40% of sexually active men. Various studies showed that the correlation of prostatic inflammation and chronic bacterial prostatitis with premature ejaculation is present in more than half of the sufferers. These studies also show that more than 85% of prostatic inflammation cases was shown to be caused by chronic prostatitis in the premature ejaculation patient group. Even though this relation is evident, the effect of antibiotic treatment of premature ejaculation in patients with chronic prostatitis has only recently being investigated extensively. In this study, 36 men suffering from secondary premature ejaculation who were included the study. These patients had no erectile dysfunction problems and were included in the study after they timed intravaginal ejaculatory latency in their last 3 intercourses to see that time was less than 2 minutes in each trial. To evaluate the prostatic inflammation, diagnosis was made by identifying 10 or more white blood cells per high power field in expressed prostatic secretions. 22 of 36 premature ejaculation patients in our study had more than 10 white blood cells in thier expressed prostatic secretions and were diagnosed to have prostatic inflammation. The other 14 patients were included in the study as the control group. Following one month antibiotic treatment 78% patients in the study group returned with the information that all 3 of their last intercourses ended with more than 2 minutes of intravaginal ejaculatory latency time while none of the control group reported similarly. No side effects were reported by any of the patients due to antibiotic usage. Our study shows that patients with PE that may benefit from month-long quinolone antibiotic therapy can be screened for by checking their expressed prostatic secretions under a microscope in the office. A more accurate definition of premature ejaculation, a scale for measuring the severity of PE, and a larger patient population would help generalize the findings of this study.

Key Words: Premature ejaculation, chronic prostatitis, antibiotic

Introduction

Premature ejaculation (PE) is regarded as the most common male sexual disorder, affecting 30–40% of sexually active men, and perhaps as many as 75% of men at some point in their lives (1). In contrast with erectile dysfunction (ED), which more frequently affects older men, PE commonly occurs to a similar extent in men of all ages. The etiology of PE is unknown. Psychological and organic reasons such as hyperthyroxinemia, low serum testosterone, a short frenulum, penile hypersensitivity, major neurological disorders, low seminal plasma magnesium levels, reflex hyperexcitability and lately chronic prostatitis have been blamed for this situation (2-4).

Chronic prostatitis is a common disabling condition that is primarily associated with pain in the urogenital region, disturbances in urinary function and pain with ejaculation (5). Prostatitis can be divided into four groups: acute bacterial prostatitis, chronic bacterial prostatitis, chronic pelvic pain syndrome, and asymptomatic bacterial prostatitis (6). Chronic pelvic pain syndrome is the most common type of prostatitis, consisting of 90-95% of all cases, and is subdivided into chronic inflammatory prostatitis (type IIIA) and chronic non-inflammatory prostatitis (type IIIB) (6-7).

Various studies showed that a correlation between both prostatic inflammation and chronic bacterial prostatitis and premature ejaculation is present in more than half of PE sufferers (8-10). These studies also showed that more than 85% of prostatic inflammation cases were caused by chronic prostatitis in the premature ejaculation patient group (11,12). Even though this relationship is evident, the effect of antibiotic treatment of premature ejaculation in patients with chronic prostatitis has only recently been investigated extensively.

In this study, we assessed if blindfolded antibiotic treatment as a first line therapy would be a statistically meaningful approach to men with prostatic inflammation seeking treatment for premature ejaculation without undergoing time-consuming and costly culture and antibiogram tests.

Material and Methods

A total of 36 consecutive heterosexual patients included in the study who were complaining of PE for at least 6 months while engaging in regular sexual activity with a female partner. Written informed consent was obtained before inclusion in this study. The diagnosis of chronic pelvic pain syndrome was made from medical histories, physical examinations and microscopic examinations of prostatic fluids and urine according to the Stamey protocol (Meares and Stamey, 1968) (13). To evaluate prostatic inflammation, a diagnosis was made by identifying ten or more white blood cells per high power field in expressed prostatic secretions. No culture and antibiogram tests were done to show the presence of inflammation.

A premature ejaculation diagnosis was made by applying the criteria defined by the Second Consultation on Sexual Dysfunctions: (i) brief ejaculatory latency; (ii) loss of control; (iii) psychological distress in the patients and/or partner (14). All three components were required for a diagnosis and other subtypes of sexual disorders were not included. None of the patients had any major psychiatric or somatic disorder, consumed any drug that could affect sexual function or used antibiotics during the previous three weeks.

A quinolone group antibiotic was the preferred treatment for six weeks in all patients, without informing them of their test results. After ending their antibiotic treatment, patients were asked to time the length of their first three intercourse experiences, and their expressed prostatic secretions were again evaluated for white blood cells two weeks after antibiotic treatment was terminated.

A two-minute post-treatment intravaginal ejaculatory latency threshold was established to define positive responders to therapy.

Results

The mean ages of Groups 1 and 2 were 34.2±2.7 (range 28-37) years and 29.7±3.1 (range 28-38) years, respectively. Of the 36 premature ejaculation patients in our study, 22 had more than 10 white blood cells in their expressed prostatic secretions and were diagnosed with prostatic inflammation. The other 14 patients were included in the study as

the control group (Table 1). Although the groups are defined a little later in this same paragraph, the methods section could benefit from including a sentence saying something like "All patients diagnosed with prostatic inflammation were classified into group 1, and the remaining 14 patients were classified into group 2, the control group"

Table 1. The disturbutions of patients with chronic prostatitis

	More than 10 WBC in HPF of EPS	**Less than 10 WBC in HPF of EPS**
number of patients (n=36)	**22**	**14**

Following 1 month of antibiotic treatment, 78% patients in the study group reported that all 3 of their post-treatment intercourse episodes ended after more than two minutes of intravaginal ejaculatory latency time while none of the control group patients reported similar results. No side effects were reported by any of the patients due to antibiotic usage (Table 2).

Table 2: Table showing the efficieny of antibiotic treatment correlated to PE with prostatic inflammation

	Last 3 intercourses longer than 2 min n (%)	Last 3 intercourses shorter than 2 min n (%)	p
Study group (n=36)	28 (78)	8 (22)	<0.001
Control group (n=14)	0 (0)	14 (100)	

Discussion

Premature ejaculation (PE) is a common sexual dysfunction in men that is characterized by a short time to ejaculation and a lack of control over ejaculation and is associated with distress for men and their partners (14). The disease affects 10–14% of men of all ages and ethnic origins. In 1998, the National Ambulatory Care Survey reported that 5% of office visitors to male genitourinary services had symptoms compatible with prostatitis (15). Stamey estimated that half of men would develop prostatitis symptoms at some point during their lifetime (16). Undoubtedly, the prostatitis affects men's quality of life. PE can be classified as either a lifelong condition (present since the onset of sexual maturity) or an acquired condition that develops after an interval of normal sexual function. A lack of knowledge about the etiology of and approved treatments for PE might contribute to its under-diagnosis and under-treatment. The etiology of PE is uncertain in most cases and likely includes a combination of organic and psychogenic factors (1,14). Although psychological reasons have recently been commonly cited as a causative factor, many studies reported a higher than normal prevalence of PE in patients with chronic prostatitis (8-12).

Chronic prostatitis has been suggested as an important cause of PE. Screponi et al. investigated the prevalence of chronic prostatitis in patients with PE and reported that prostatic inflammation and chronic bacterial prostatitis were found in 56.5% and 47.8% of the subjects with PE, respectively (17). These findings were further confirmed by El-Nashaar, who showed that in a cohort of 153 men with PE, 64% had prostatic inflammation and 52% had chronic bacterial prostatitis (1). The mechanism of premature ejaculation in relation to prostatitis is not clear. However, it has been speculated that one of the pathogenetic mechanisms of premature ejaculation is sensory impairment occurring prior to orgasm. Therefore, prostatic inflammation may be altering sensation and modulating the ejaculatory reflex (10,16-18).

Various treatment options are being used for the treatment of premature ejaculation, but etiology-specific treatments should be utilized whenever positive as it is more likely to be effective (2,19,20). Recent

studies have started to emphasize the importance of the correlation between genitourinary infection and premature ejaculation, and screening for infection or inflammation should be incorporated as routine during the evaluation of patients with premature ejaculation (21). Initial studies examining the effect of antibiotics on improving PE reported successful outcomes. In one study, treatment with antibiotic resulted in 62 (83.9%) patients with chronic prostatitis experiencing increases in their ejaculatory latency time as well as improved control of ejaculation, and these patients were therefore considered treatment-responsive (21). In that study, the authors emphasized that none of the control group patients experienced any improvement either in their prostatic infection or their ejaculation time. Our study demonstrates a highly positive effect of the use of antibiotics in treatment of patients with PE and chronic bacterial prostatitis. As mentioned above, sensory impairment occurring before orgasm is considered one of the pathogenetic mechanisms of PE.

It is known that measures comprising the Chronic Prostatitis Symptom Index (pain, urinary symptoms, quality of life) are not correlated with white blood cell counts in expressed prostatic secretions (22); however, our one month antibiotic treatment of patients with prostatic inflammation resulted in a notable improvement. We conclude that prostatic inflammation diagnosed by high white blood cell counts in expressed prostatic secretions without the presence of symptoms of prostatitis highly correlates with the early stages of chronic bacterial prostatitis. Patients in this situation who experienced premature ejaculation benefited from antibiotic treatment. None of the control group patients, consisting of those without prostatic inflammation, benefited from antibiotic treatment. This suggests that the mechanism of action of the treatment was through treating the prostatic infection.

Our study shows that even under conditions where culture and antibiogram tests may not be available, patients with PE that may benefit from month-long quinolone antibiotic therapy can be screened for by checking their expressed prostatic secretions under a microscope in the office. A more accurate definition of premature ejaculation, a scale for measuring the severity of PE, and a larger patient population would help generalize the findings of this study.

REFERENCES

1) El-Nashaar A, Shamloul R. Antibiotic treatment can delay ejaculation in patients with premature ejaculation and chronic bacterial prostatitis. : J Sex Med. 2007 Mar;4(2):491-6

2) Gurkan L, Oommen M, Hellstrom WJ. Premature ejaculation: current and future treatments. Asian J Androl. 2008 Jan;10(1):102-9.

3) Colpi G, Weidner W, Jungwirth A, Pomerol J, Papp G, Hargreave T, Dohle G; EAU Working Party on Male Infertility. EAU guidelines on ejaculatory dysfunction. Eur Urol. 2004 Nov;46(5):555-8.

4) Rowland D, Burek M. Trends in research on premature ejaculation over the past 25 years. J Sex Med. 2007 Sep;4(5):1454-61. Epub 2007 Jul 21.

5) Smith KB, Tripp D, Pukall C, Nickel JC. Predictors of sexual and relationship functioning in couples with Chronic Prostatitis/Chronic Pelvic Pain Syndrome. J Sex Med. 2007 May;4(3):734-44.

6) Nickel JC, True LD, Krieger JN, Berger RE, Boag AH, Young ID. Consensus development of a histopathological classification system for chronic prostatic inflammation. BJU Int. 2001 Jun;87(9):797-805

7) Pontari MA, Ruggieri MR. Mechanisms in prostatitis/chronic pelvic pain syndrome. J Urol. 2004 Sep;172(3):839-45.

8) Schultheiss D. Urogenital infections and male sexuality: effects on ejaculation and erection. Andrologia. 2008 Apr;40(2):125-9.

9) Ilie CP, Mischianu DL, Pemberton RJ. Painful ejaculation. BJU Int. 2007 Jun;99(6):1335-9.

10) Liang CZ, Zhang XJ, Hao ZY, Shi HQ, Wang KX. Prevalence of sexual dysfunction in Chinese men with

chronic prostatitis. BJU Int. 2004 Mar;93(4):568-70.

11) Sadeghi-Nejad H, Seftel A. Sexual dysfunction and prostatitis. Curr Urol Rep. 2006 Nov;7(6):479-84.

12) Müller A, Mulhall JP. Sexual dysfunction in the patient with prostatitis. Curr Urol Rep. 2006 Jul;7(4):307-12.

13) Meares EM, Stamey TA. Bacteriologic localization patterns in bacterial prostatitis and urethritis. Invest Urol. 1968 Mar;5(5):492-518.

14) McMahon CG, Althof S, Waldinger MD, Porst H, Dean J, Sharlip I. An evidence-based definition of lifelong premature ejaculation: report of the International Society for Sexual Medicine Ad Hoc Committee for the Definition of Premature Ejaculation. BJU Int. 2008 Aug;102(3):338-50.

15) Collins MM, Stafford RS, O'Leary MP, Barry MJ. How common is prostatitis? A national survey of physician visits. J Urol. 1998 Apr;159(4):1224-8.

16) Stamey TA. Prostatitis. J R Soc Med. 1981 Jan;74(1):22-40.

17) Screponi E, Carosa E, Di Stasi SM, Pepe M, Carruba G, Jannini EA. Prevalence of chronic prostatitis in men with premature ejaculation. Urology. 2001 Aug;58(2):198-202.

18) Shamloul R, el-Nashaar A. Chronic prostatitis in premature ejaculation: a cohort study in 153 men. J Sex Med. 2006 Jan;3(1):150-4.

19) Giuliano F, Hellstrom WJ. The pharmacological treatment of premature ejaculation. BJU Int. 2008 Sep;102(6):668-75.

20) Morales A, Barada J, Wyllie MG. A review of the current status of topical treatments for premature ejaculation. BJU Int. 2007 Sep;100(3):493-501.

21) El-Nashaar A, Shamloul R. Antibiotic treatment can delay ejaculation in patients with premature ejaculation and chronic bacterial prostatitis. J Sex Med. 2007 Mar;4(2):491-6.

22) Schaeffer AJ, Knauss JS, Landis JR, Propert KJ, Alexander RB, Litwin MS. Leukocyte and bacterial counts do not correlate with severity of symptoms in men with chronic prostatitis: the National Institutes of Health Chronic Prostatitis Cohort Study. J Urol. 2002 Sep;168(3):1048-53.