PELVİK İNFLAMATUAR HASTALIKTA GENÇ YAŞ BASKINLIĞI İLERİ YAŞ LEHİNE DEĞİŞİYOR MU?

Is the Young age Predominance for Pelvic Inflammatory Disease Changing in Favor of Older age Group?

İsmail Burak GÜLTEKİN, Orhan ALTINBOĞA, Elif AKKAŞ YILMAZ, Banu SEVEN, Nihan GÜNERİ DOĞAN, Tuncay KÜÇÜKÖZKAN

[1]Dr. Sami Ulus Kadın Doğum, Çocuk Sağlığı ve Hastalıkları Eğitim ve Araştırma Hastanesi, Kadın Hastalıkları ve Doğum Kliniği Ankara

İsmail Burak GÜLTEKİN, Uzm. Dr.
Orhan ALTINBOĞA, Uzm. Dr.
Elif AKKAŞ YILMAZ, Uzm. Dr.
Banu SEVEN, Uzm. Dr.
Nihan GÜNERİ DOĞAN, Uzm. Dr.
Tuncay KÜÇÜKÖZKAN, Uzm. Dr.

İletişim:
Uzm.Dr. İsmail Burak GÜLTEKİN
Dr. Sami Ulus Kadın Doğum ve Çocuk Hastalıkları Eğitim ve Araştırma Hastanesi, Babür Cd. No:36, 06080 Altındağ, Aankara
Tel: 0312 305 6000
e-mail:
burakgultekin@yahoo.com

Geliş tarihi/Received: 24.04.2015
Kabul tarihi/Accepted: 31.08.2015

Bozok Tıp Derg 2015;5(3):47-50
Bozok Med J 2015;5(3):47-50

ÖZET

Amaç: Üçüncü basamak bir referans hastanesinde pelvik inflamatuar hastalık insidansı ve dağılımını araştırmak.

Materyal ve Metod: 2008 ve 2012 yılları arasında, 4 yıllık dönemdeki elektronik hasta dosyaları retrospektif olarak tarandı. Çalışmaya toplam 2.235 kadın hasta dahil edildi. İncelenen ana değişkenler yaş gruplarına göre insidans ve dağılım olarak belirlendi.

Sonuç: Çalışmaya dahil edilen 2.235 kadının %43,4'ü 35 yaş üzeri, %18,2'si 30-35 yaş aralığında, %23'ü 25-30 yaş aralığında, %9,3'ü 20-24 yaş aralığında ve %6'sı 20 yaş altı olarak bulundu. Kullanılan kontrasepsiyon yöntemleri ve oranları %18 rahim içi araç (RİA), %5,2 kombine oral kontraseptifler, %10 kondom, %3,2 cerrahi sterilizasyon ve %26,1 geri çekme yöntemi olarak bulundu. Vajinal duş kullanım insidansı %57 oranında iken, bu uygulamayı kadınların %59'unun cinsel ilişki sonrası uyguladığı saptandı. Vajinal duş uygulamasının yaş gruplarına göre dağılımında adolesanlarda (<20 yaş) %40,4 iken, 20 yaş üstü grupta %59,6 olduğu tespit edildi.

Tartışma: Batı toplumlarının aksine, pelvic inflammatory disease (PID) insidansının çalışma popülasyonundaki adolesanlarda daha düşük insidansa sahip olduğu saptandı. Muhafazakar toplumlardaki ilk ilişki yaşının daha ileri olması ve monogaminin bu sonuçlara neden olması olasıdır. Vajinal duş uygulaması da bu sonuçlara katkıda bulunabilir. Yaş gruplarına göre insidansın belirlenmesinde ulusal ölçekte, daha iyi tanımlanmış kentsel ve kırsal popülasyonlarda yapılacak çalışmalar ile daha doğru sonuçlara ulaşmak mümkün olacaktır.

Anahtar kelimeler: *Adölesan; Pelvik inflamatuar hastalık; Vajinal duş*

ABSTRACT

Objectives: To find out pelvic inflammatory disease (PID) incidence and distribution among different age groups at a tertiary referral hospital.

Material and Methods: Subjects were gathered prospectively from the electronic medical files of female patients seen as inpatients over a period of 4 years (between 2008 and 2012). A total of 2,235 patients were included within the study and were reviewed in depth. The main outcome measures were the incidence and distribution among different age groups.

Results: Out of 2,235 women included within the study 43.4% were above 35 years of age, 18.2% were between 30-35 years of age, 23% were between 25-30 years of age, 9.3% were between 20-24 years of age and 6% were less than 20 years of age. The percentages of contraceptive methods being used were 18% intrauterine device (IUD), 5.2% combined oral contraceptives (OC), 10% condom, 3.2% surgical sterilization and 26.1% coitus interruptus (CI). Vaginal douching (VD) incidence was 57% with 59% performing this practice after the coitus. The distribution of vaginal douching for age groups were 40.4% for adolescents (<20 y) and 59.6% for those above 20 years of age.

Conclusion: We found a lower incidence of PID in adolescents in contrast to the rates reported for Western populations. Older age at first coitus and monogamy in the conservative societies may be responsible for these findings. Practice of VD might also contribute to these rates. More accurate monitoring of incidence in well-defined populations in both urban and rural areas of Turkey should be conducted to find out actual distribution of PID among age groups.

Key words: *Adolescent; Pelvic inflammatory disease; Vaginal douching*

Bozok Tıp Derg 2015;5(3):47-50
Bozok Med J 2015;5(3):47-50

INTRODUCTION

Pelvic inflammatory disease is the infection of the female upper genital system mostly arising from an ascending infection of a sexually transmitted disease (STD). Although it is usually a mixed infection, the most two common microorganisms responsible for PID are Neisseria gonorrhea and Chylamidia trachomatis. Apart from these, Bacteroides, Pneumococci, H. influenza can also be seen in a lesser extent. PID symptoms vary according to the causative microorganism; being more prominent and fast advancing with N. gonorrhea and usually subtle and subclinical with C. trachomatis infections. The adolescent age group, IUD usage and having multipartners are accused as risk factors to develop PID.

Even though ultrasonography and laparoscopy can be used for confirmation, PID is typically diagnosed with clinical findings. Proper diagnosis of PID and immediate treatment is essential for avoiding sequelae which are caused by this disease in the future. Because of the infertility risk as a sequelae of this disease and being a disease of reproductive age, diagnosis and treatment is particularly important. In Western literature and reference textbooks most common period of PID is stated as the adolescence period. Our aim in this study is to find out the frequency of patients diagnosed as PID according to age groups in our clinic.

MATERİAL AND METHOD

Selection of Groups

A retrospective study was performed by evaluating the electronic medical files of patients who admitted to an obstetrics and gynecology outpatient clinicat a tertiary hospital with PID symptoms (pelvic pain, vaginal discharge, fever, urinary symptoms) or who had been treated for PID between 2008 and 2012. Patients who were sexually active and between the ages of 15-49 were included in the study. Patients were evaluated according to the PID diagnostic criteria (Table 1). Patients who met the diagnostic criteria were grouped according to age and the contraceptive methods they use. A total of 2,480 patient files were evaluated. 2,235 patients were found to be eligible and included in the study

Table 1. Clinic criteria in pelvic inflammatory disease (PID) diagnosis.

Symptoms	Not necessary
Findings	Pelvic organ sensitivity
	Vaginal discharge and/or mucopurulent endoservisit
Additional criteria	Endometrial biopsy showing endometritis
	Increased C-reactive protein or increased erythrocyte sedimentation rate
	Body temperature above 38'C
	Leukocytosis
	Positive test for Gonorrhea and Chlamydia
Detailed criteria	Tubaovarian abscess in sonography
	Salpingitis in laparoscopy

RESULTS

2,235 patients who had PID diagnosis and treatment were included in the study. 43.4% of these patients were 35 years or older, 18.2% of them were between ages 30-35, 23% of them were between ages 25-30, 9.3% of them were between ages 20-24 and 6% of them were between ages 10-19. 18% of these patients wereusing IUD for contraception, 5,2% of them were using oral contraceptives, 10% of them were using condom, 3,2% had surgical sterilization and 26,1% were using coitus interruptus. 57% of these patients were performing vaginal douching (VD) and 59% of these patients were performing VD right after intercourse. 23% of them were adolescence and 34% of them were 20 years and older.

Table 2. Age distribution of patients with PID.

Age groups	Number (n)	Percentage (%)
10-19	134	6.0
20-24	208	9.3
25-29	515	23.0
30-35	407	18.2
>35	971	43.4
Total	**2,235**	**100**

DISCUSSION

The purpose of the PID treatment is to make sure patients with mild PID symtomps are properly diagnosed using the PID criteria, and avoiding the use of unnecessary antibiotics in patients with no infections (8). Misdiagnosis of patients with mild PID symptoms might cause chronic sequelaes in the future while unnecessary antibiotic usage can cause resistance and unnecessary financial burden. According to World Health Organization's (WHO) definition; people between ages of 10-19 are defined as adolescence group. PID is most commonly seen in adolescence group according to many references. Being an adolescence is already included in the PID risk factors. Main reasons for this situation are; low antibody levels for microorganisms which cause PID in 16-24 age group, wider cervical ectopic area and more permeable cervical mucus (10,11). While PID risk is 1/8 in sexually active 15 year olds, it is 1/80 for ages 24 and older.

According to a laparoscopic study of Westrom, 70% of patients who had acute salpingitis were younger than 25, and 33% of patients were younger than 19 years when they first had the attack and 75% of them were nulliparous. Main reasons for these high ratios in adolescence group were high prevalence for sexually transmitted infections in this group of patients, multiple sexual partners and less usage of barrier contraceptive methods (12).

In our study; only 6.0% of the patients diagnosed with PID and received treatment were between 10-19 ages. 94.0% of patients were 20 or older (9.3% were between 20-24, 23.0% were 25-30, 18.2% were 30-35 and 43.4% of them were 35 and older). The influence of first sexual intercourse age on these ratios is highly probable. In developed countries; first sexual intercourse age is commonly in adolescence period whereas in Turkey one of the studies about this topic showed that in 75% of the participants first sexual relationship age is between 19-21 (13). In another study performed in Turkey, first sexual relationship age in women was defined as 19 and in men as 17 (Tortumluoğlu et al 2006). In the same study, 82.4 of female and 86.5% of male university students stated the importance of virginity for marriage. Turkey Demographic and Health Survey 2008 revealed that 43% of women between ages 25-49 were married before 20, 25% were married before 18 and 5% were married before the age of 15 (14). Results of this study demonstrated the importance of monogamy in Turkey.

A study by Zhang et al., showed that VD increases PID risk by 73% (15). In another study conducted in patients who have received a diagnosis of PID, 67.2% of patients were found to perform VD (16). In our study, 57% of the patients were performing VD and 59% of these were performing VD right after intercourse. 23% of this VD group were adolescence and 34% were older than 20 years.

When we evaluated the results of this study; in contrast to western literature and references; most of the patients diagnosed as PID and received treatment were older than 35 years in Turkey (%43.4). Main reasons that may influence the differences in these results may be the early onset of marriage, the preference of monogamy and the common usage of VD in older age groups rather than adolescence group in Turkey. Cultural differences, religious beliefs and hygienic conditions are also considered to be important factors that have an influence on the results. More studies need to be conducted in order to evaluate the influence of these factors on PID distribution based on age groups in Turkey.

REFERENCES

1. Paavonen J, Molander P. Pelvic inflammatory disease. Gynecology, Third Edition, Ed: RW Shaw, WPSoutter, SL Stanton. Churchill Livingstone, p 891.

2. Kelly AM, Ireland M, Aughey D. Pelvic inflammatory disease in adolescents: High incidence andrecurrence rates in an urban teen clinic. J Pediatr Adolesc Gynecol 2004;17(6):383-8.
3. Microbial etiology of urban emergency department acute salpingitis: treatment with ofloxacin.Soper DE, Brockwell NJ, Dalton HP.Am J Obstet Gynecol. 1992 Sep;167(3):653-60.
4. Microbial causes of proven pelvic inflammatory disease and efficacy of clindamycin and tobramycin.Wasserheit JN, Bell TA, Kiviat NB, Wølner-Hanssen P, Zabriskie V, Kirby BD, Prince EC, Holmes KK, Stamm WE, Eschenbach DA.Ann Intern Med. 1986 Feb;104(2):187-93.
5. Hillis SD, Joesoef R, Marchbanks PA, Wasserheit JN, Cates W Jr, Westrom L.Delayed care of pelvic inflammatory disease as a risk factor for impaired fertility.Am J Obstet Gynecol. 1993 May;168(5):1503-9.
6. Washington AE, Cates W, Wasserheit JN. Preventing pelvic inflammatory disease. JAMA 1991;18:2574.
7. Soper. D.E.Genitourinary Infections and Sexually Transmitted Diseases In: Berek.J .S. Berek and Novak's Gynecology .USA.Lippincott Williams&Wilkins 2012. P:565
8. Wolner-Hanssen P, Kiviat NB, Holmes KK. Atypical pelvic inflammatory disease: subacute, chronic, or subclinical upper genital tract infection in women. In: Holmes KK, Mardh P-A, Sparling PF, Wiesner.
9. PJ, Cates W, Lemon SM, Stamm WE (editors). Sexually transmitted diseases, 2nd ed. New York (NY): McGraw-Hill, 1990; 615-620.
10. Washington A, Wadsworth J, Wellings K, et al.Assessing risk for pelvic inflammatory disease and its sequelae.JAMA 1991 ;266:2581-6
11. Cates Jr W, Rolfs Jr R, Aral S.Sexually transmitted diseases, pelvic inflammatory disease, and infertility:an epidemiologic update.Epidemiol Rev 1990;12:199-220
12. İnfectious diseases of the female genitale tract .Lippincott Williams &Wilkins 2012c:13 s:221
13. Giray H, Kılıç B. Bekar kadınlar ve üreme sağlığı. STED 2004; 13 (8):286-289.
14. 2008 Türkiye Nüfus ve Sağlık Araştırması, HÜNEE, Sağlık Bakanlığı Ana Çocuk Sağlığı ve Aile Planlaması Genel Müdürlüğü, Başbakanlık Devlet Planlama Teşkilatı Müsteşarlığı ve TÜBİTAK, Ankara.
15. Jun Zhang, MB, PhD, A. George Thomas, MD, and Etel Leybovich, Vaginal Douching and Adverse Health Effects: A Meta-Analysis, American Journal of Public Health, July 1997, Vol. 87, No. 7,1207-1211.
16. Scholes D, Daling JR, Stergachis A, Weiss NS, Wang SP, Grayston JT. Vaginal douching as a risk factor for acute pelvic inflammatory disease. Obstet Gynecol. 1993 Apr;81(4):601-6.