

The comorbidity of adult attention-deficit/hyperactivity disorder in panic disorder patients

Panik bozukluğu hastalarında dikkat eksikliği hiperaktivite bozukluğu eştanısı

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Abstract

Background: While high attention deficit hyperactivity disorder (ADHD) comorbidity in pediatric patients with panic disorder (PD) has been evaluated, the comorbidity of adult ADHD in adult patients with PD have not been studied. The aim of this study is to analyze ADHD comorbidity in adult PD patients, and to compare with healthy controls, and to compare PD patients with ADHD.

Methods: Sixty patients diagnosed as PD from outpatient unit of Istanbul Sisli Etfal Teaching and Research Hospital, Psychiatry Department and, control group of individuals without DSM-IV Axis I psychopathology were also recruited. The Turkish version of the Structural Clinical Interview for DSM-IV, Wender Utah Rating Scale, Adult ADD/ADHD DSM-IV based Diagnostic and Rating Scale were administered to participants.

Result: Adult ADHD comorbidity of PD patients was identified to be 6,7%. PD patients with adult ADHD had higher rates of alcohol and substance abuse than without adult ADHD and, all of the PD patients with adult ADHD had generalized anxiety disorder (GAD).

Conclusion: Patients with PD, especially with comorbid anxiety disorders and, alcohol/substance abuse or dependence should be evaluated for adult ADHD.

Key words: Attention deficit hyperactivity disorder, comorbidity, panic disorder

Özet

Amaç: Panik bozukluğu (PB) olan pediatrik hastalar ile dikkat eksikliği hiperaktivite bozukluğu (DEHB) birlikteliği sık olmasına karşın, erişkinlik döneminde DEHB ve PB birlikteliği incelenmemiştir. Bu çalışmada PB hastalarında DEHB birliğine analiz etmek ve PB hastalarında DEHB olanlar ile sağlıklı kontrol grubunu karşılaştırmak amaçlanmıştır.

Materyal ve metod: Şişli Etfal Eğitim ve Araştırma Hastanesi Psikiyatri Kliniğinden 60 PB tanılı hasta ile

DSM-IV Eksen I psikopatolojisi olmayan kontrol grubu çalışmaya dahil edilmiştir. DSM-IV için Yapılandırılmış Klinik Görüşmesi, Wender Utah Derecelendirme Ölçeği, Erişkin Dikkat Eksikliği Hiperaktivite Ölçeği katılımcılara uygulanmıştır.

Bulgular: PB hastalarında DEHB birlikteliği % 6.7 oranında saptanmıştır. Alkol ve madde kötüye kullanımı DEHB eştanısı olan PB hastalarında, DEHB eştanısı olmayan gruba göre daha yüksek düzeydeydi. DEHB eştanısı olan PB hastalarının tamamında yaygın anksiyete bozukluğu bulunmakta idi.

Sonuç: PB hastalarından özellikle anksiyete bozukluğu ve alkol madde kötüye kullanımı eştanısı olanlar DEHB yönünden değerlendirilmelidir.

Anahtar Kelimeler: Dikkat eksikliği hiperaktivite bozukluğu, eştani, panik bozukluk

Introduction

Panic disorder is a common mental disorder, that the life time prevalence is 1-4% (1). It is often disabling, particularly when complicated by agoraphobia, and is associated with substantial functional morbidity and reduced quality of life (2). ADHD is characterized with consistently history of hyperactivity, forgetfulness, distractibility, inattention and impulsiveness which associated with family, social, behavioral and academic impairment. Recent long-term studies have demonstrated that 50% of the cases of childhood ADHD continue into adulthood (3). Large-sample study of a community in the United States was identified that adult ADHD prevalence 4.4% (4).

Psychiatric comorbidity in panic disorder is common. Psychiatric disorders which are comorbid during the lifetime of panic patients include depression, social phobia, generalized anxiety disorder, specific phobia, and alcohol / substance abuse or dependence (5). Children and adults with ADHD very often have comorbid anxiety disorders. Bradley and Hood found that in a cohort of 28 adolescents presenting with panic attacks, six (21.4%) had also met criteria for ADHD (6,7). Biederman et al. in researching patterns of comorbidity for children and adolescents diagnosed with panic disorder, found very high rates of ADHD comorbidity (8). Both

ADHD and anxiety disorders have similar significant genetic etiological contributions. Biederman et al. found a greater risk for anxiety disorders in ADHD patients and their family, than in normal samples (9). The comorbidity of adult ADHD in adult panic disorder has not, to our knowledge, been studied before. The aim of this study is to analyze the presence of ADHD comorbidity in adult PD patients, to compare with healthy controls.

Methods

Study design and study groups

This study is a prospective cross-sectional study performed at Istanbul Sisli Etfal Teaching and Research Hospital between January and June 2011. The study was approved by the ethics committee of Sisli Etfal Teaching and Research Hospital; all participants were informed, verbal and written informed consents were obtained.

A total of sixty patients with PD diagnosed according to DSM-IV criteria were recruited from outpatient unit. The healthy control group was selected from hospital staff and relatives of inpatients from Sisli Etfal Hospital department of other clinics. The Turkish version of the Structural Clinical Interview for DSM-IV (SCID-I) was administered to individuals with control group for assessing the axis I psychiatric disorders (10). The healthy control group consisted of 60 individuals without any diagnosis of axis I psychiatric disorders according to DSM-IV. In addition to the clinical presentation, all patients and

control subjects underwent physical examination. The physical examination was normal.

Exclusion criteria for both the sample and control groups were identified as: current general medical condition, dementia, delirium, mental retardation, being illiterate, age under 18, the presence of bipolar disorder Type I, Type II or other mood disorders, psychotic disorder and treated with psychotropic drugs due to ADHD.

Diagnostic assessments

Panic agoraphobia scale was applied to the PD patient group. Validity and reliability of the Turkish version of the scale were done by Tural et al. in 2000 (11). Participants were first evaluated for the presence of childhood ADHD according to DSM-IV diagnostic criteria. A detailed psychiatric interview was conducted with the first-degree relatives and their living parents to confirm the childhood diagnosis of ADHD. The Turkish version of Wender Utah Rating Scale (WURS) was used for screening childhood ADHD. WURS-25, a 25-item self-report scale is based on the Utah Criteria, which developed to diagnose ADHD in adults. The Turkish version of WURS-25 has been found to be reliable and valid for assessing the childhood symptoms of ADHD in adults. In the Turkish version of WURS the cut-off point was taken as 36 or above (12). Turgay's Adult ADD/ADHD DSM-IV Based Diagnostic and Rating Scale was also administered PD patients and control group for screening adult ADHD symptoms. The scale is composed of three dimensions; nine items regarding symptoms of attention deficit, nine items regarding hyperactivity/impulsivity based on DSM-IV, 30 items regarding problems related to ADHD. Validity and reliability of the Turkish version of the scale were done by Gunay et al (13).

In order to confirm the full diagnosis of adult ADHD the following DSM-IV criteria were

used: A) presence of at least six inattention symptoms, presence of at least six hyperactivity/impulsivity diagnostic criteria during the last 6-month period; B) full DSM-IV diagnosis of childhood ADHD by the age of 7; C) some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home); D) there must be clear evidence of clinically significant impairment in social, academic, or occupational functioning; E) the symptoms are not better accounted for by another mental disorder. Even though significant limitations remain, DSM criteria have been successfully adapted for identification of adult patients with ADHD (14).

Statistical Analysis

Statistical analysis in this study used the SPSS 15 program. A chi-squared test and Fisher exact test were used to compare the categorical parameters. Fisher's exact test was employed when the number of cells was less than five. The two groups comparisons of normally distributed parameters were tested with a t-test. The Mann Whitney U test was applied for comparisons between groups. The level of significance was accepted as 0.05.

Results

Demographics: The mean age of PD group was 35.23 ± 7.08 years, the mean age of control group was 31.98 ± 6.85 . Other demographics is shown in Table 1. There were no statistically significant differences in age, sex, marital status and level of education between the PD group and control group.

Rate of psychopathology: 16.7% (n=10) of the PD group had childhood ADHD and 6.7% (n=4) of the control group had childhood ADHD (p=0.153). 6.7% (n=4) of the PD group had adult ADHD and 1.7% (n=1) of the control group had adult (p=0.364) (Table II).

Discussion

Adult ADHD was identified in 6.7% of the patients with PD. Although there is no study evaluating adult

ADHD comorbidity in adult PD patients, adult ADHD rate was identified as 27,9% in the study Ameringen et al. evaluating adult ADHD comorbidity in patients with anxiety disorders. In this study, for diagnosis of adult ADHD was used MINI (Mini International Neuropsychiatric Interview), and collaborative reports from family members regarding ADHD symptoms were not obtained (15). In our study, pediatric history was obtained from first degree relatives of the patients. WURS was used for the diagnosis of childhood ADHD and Turgay's Adult ADD/ADHD DSM-IV Based Diagnostic and Rating Scale was used for the diagnosis adult ADHD.

While we found the childhood ADHD comorbidity in 16.7% of the PD patients, Fones et al. found that; in a study of 85 adult with panic disorder, 23.5% of patients had childhood ADHD (5). While for the diagnosis of ADHD was used DSM-III-R in this study, we used DSM IV in our study.

Additional studies of the frequency of comorbidity and associated factors are greatly needed, to include studies of differential effects of treatment of children or adult with various comorbid ADHD disorders, as well as of ADHD children or adult who differ on etiological factors (16). In addition, studies have demonstrated that ADHD subjects with comorbid anxiety showed significantly poorer response to stimulant (methylphenidate) treatment than those without such symptoms demonstrating a clinically important utility of such a subclassification (17, 18). In addition, the presence of comorbidity can significantly affect the choice of pharmacological therapy. Psychostimulants are thought to be anxiogenic, and may worsen anxiety or panic symptoms comorbid with ADHD. Benzodiazepines are used for treatment of panic and other anxiety disorder, but tend to depress cortical activity and impair

attention cognition, reaction span and impulse control and it may be inappropriate for some ADHD patients (19, 20).

Our study has several limitations that should be considered. The major limitation is the low number of PD participants with adult ADHD. Larger sample of PD participants with adult ADHD could increase the statistical power in comparisons. The other limitation is the retrospective collection of childhood symptoms by adult subjects to diagnosis of childhood ADHD. We tried to reduce the limitation by interviewing parents. Although these limitations of this study has several strengths, including the presence of healthy control group, as well as structured diagnostic interviews with participants and parents. To the best of knowledge this study is the first study to investigate the prevalence of adult ADHD in PD patients. Future longitudinal studies are needed to evaluate the frequency of adult ADHD in PD, and in other anxiety disorders, common etiologic association, prognosis and treatment of these disorders.

In conclusion, there was no significant difference in comorbidity of childhood or adult ADHD between patients with PD and controls. The comorbidity of childhood ADHD is a higher frequency than the comorbidity of adult ADHD in PD. the frequency of comorbidity and associated factors are greatly needed, because of benzodiazepines can be worsen ADHD and also psychostimulants are thought to be anxiogenic.

Table I. Demographic characteristics

Diagnosis	PD(n=60)	Control(n=60)	χ^2	P
Sex				
female	39 (66.7%)	31(51.7%)	2.914	0.139
male	21 (33.3%)	29(48.3%)		
Marital status				
single	8 (13.3%)	14 (23.3%)	5.523	0.137
married	51(85%)	41 (68.3%)		
divorced	1(1.7%)	4(6.7%)		
widowed	-	1(1.7%)		
Education				
primary school	29(%48.3)	17(28.3%)	5.265	0.072
high school	21(%35)	27(45%)		
university	10(%16.7)	16(26.7%)		
Occupation				
house wife	22(%38.3)	23(32.2%)	0.514	0.972
student	1(%1.7)	2(1.7%)		
civil servant	11(18.3)	10(18.6%)		
laborer	21(%36.7)	21(40.7%)		
self-employed	5(%5)	4(6.8%)		

Table II. Childhood and adult ADHD in PD patient and control group

Diagnosis	PD(n=60)	Control(n=60)	χ^2	P
Childhood ADHD ^a				
yes	10 (16.7%)	4(7.14%)	11.743	0.153
no	50 (83.3%)	56(92.8%)		
Adult ADHD ^a				
yes	4 (6.7%)	1 (1.7%)	4.138	0.364
no	56 (93.3%)	59 (98.3%)		

^aFisher's exact test

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