The effect of treating generalized anxiety disorder on psychoactive substance abuse and dependency in Erbil city

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ABSTRACT

Background and Objectives: Generalized anxiety disorder is a common psychiatric disorder; it may act as a risk factor for psychoactive substance abuse and dependency development. The objectives are to assess the degree of abuse and dependency in generalized anxiety disorder patients, and the effect of treating the disorder on substances abuse an dependency.

Methods: 120 patients with generalized anxiety disorder, diagnosed according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), were studied from January 2007 to June 2008 for the presence of psychoactive substance abuse and dependency according to DSM-IV. All cases were managed for six months by the tricyclic antidepressant imipramine (35-75mg/day), with counseling to decrease anxiety by reassurance and anxiety management including relaxation training, in addition to supporting and encouraging the patients with abuse to stop the used psychoactive substances by a tapering schedule over weeks.

Results: Substance abuse were presents in 32.5% of patients (tobacco 17.5%, benzodiazepines 13.3%, and alcohol 1.7%), this rate decreased to 13.3% (tobacco 11.7%, benzodiazepines 0.8%, and alcohol 0.8%) six months after starting treatment. The decrease in benzodiazepines abuse and dependency was greater than that in tobacco or alcohol.

Conclusions: Generalized anxiety disorder appears to encourage abuse on psychoactive substances. Treating the disorder decreases abuse and using imipramine appears to have a good therapeutic effect on generalized anxiety disorder with low risk for abuse. .

Key words: Generalized anxiety disorder, abuse, dependency.

INTRODUCTION:

Generalized anxiety disorder (GAD) is a common psychiatric disorder in the general population[1], where it occurs in about 5% of the population[2, 3]. The typical age of onset is in the early 20s, but the disorder may begin at any age[3]. Male to female ratio is about 0.5:1[4]. GAD was defined by the tenth revision of international classification of diseases (ICD-10) as: anxiety that is generalized and persistent but not restricted to, or even strongly predominating in, any particular environmental circumstances (i.e. it is "free-floating")[5]. The extent to which anxiety interferes with work and social life varies greatly among individuals with this disorder, and although the impairment is usually mild but people commonly attempt to control their anxiety by abusing drugs such as alcohol, barbiturates, anxiolytic agents and other psychoactive substances, In such cases, substance abuse often stops when the anxiety disorder is treated properly[1]. There is increasing recognition that people in contact with general mental health services have increased rates of alcohol and drug problems, with approximately one-third reporting such problems[6]. Symptoms of GAD are usually chronic and stay for long period[7], but with proper treatment the prognosis is good; where over 70% of patients improve with pharmacologic therapy; best when

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combined with psychotherapy[4]. Tricyclic antidepressants and selective serotonin reuptake inhibitors reduce the intensity of anxiety in all types of anxiety disorders [4] Some tricyclics are considered within the first line treatment for GAD[8] Imipramine is a typical drug in this class[4]. The response to treatment in GAD is usually seen within 6 weeks of therapy and continues to increase over time. The optimal duration of treatment has not been determined but should be at least for 6 months[8]. The treatment is often needed indefinitely, although some GAD patients become relatively asymptomatic within few years[7]. Effective treatment of GAD may prevent the development of major depression[8]. The objectives of the study: To estimate the degree of psychoactive substance abuse and dependence in GAD, and then to estimate the effect of treating GAD on psychoactive substance abuse and dependence.

PATIENTS & METHODS:

A sample of 120 patients, 84 females and 36 males, having GAD were enrolled in this study in a private psychiatric clinic in Erbil city from January 2007 to June 2008. The diagnosis of GAD was based on clinical ground by specialist psychiatrist and checked by a psychiatric interview based on the diagnostic and statistical manual of mental disorders, fourth edition (DSM-IV) [9]. All patients were asked for psychoactive substance abuse and dependence (tobacco, alcohol, drugs, and other substances). Psychoactive substance abuse and dependence was considered when the patients fulfill the criteria of diagnosing substance abuse or dependency according to DSM-IV [9]. All cases were managed by the tricyclic antidepressant imipramine, as tablets in a daily dose of 35-75 mg/day, for six months at least. The drug therapy was combined with psychotherapy in the form of counseling to decrease anxiety, reassurance and anxiety management including relaxation training, in addition to encouraging the patients with psychoactive substance abuse and dependence to stop these substances by using a tapering schedule over weeks. All cases were evaluated again for psychoactive substance abuse and dependence six months after treatment.

RESULT:

In this prospective study on 120 patients with GAD we found that only 39 patients (32.5%) fulfill the criteria for psychoactive substance abuse or dependence.

Table 1: Distribution of patients with GAD according to age and sex.

Age (years)	Males		Females		Total	
	No.	%	No.	%	No.	%
16-20 y	4	11.1	8	9.5	12	10
20-29 y	19	52.8	28	33.3	47	39.2
30-39 y	8	22.2	29	34.5	37	30.8
40-49 y	3	8.3	16	19	19	15.8
50-59 y	2	5.6	2	2.4	4	3.3
>60 y	0	0	1	1.2	1	0.8
Total	36	100	84	100	120	100

Ages as a whole: Range= 47 (16-63), Mean = 29.3, SD= 10.1
Ages of males: Range= 42 (16-58), Mean = 28.9, SD= 9.9
Ages of females: Range= 46 (17-63), Mean = 29.7, SD= 10.2
Male/female ratio = 0.43/1

Table 2: Distribution of patients with GAD in relation to psychoactive substance abuse and dependence before treatment.

Psychoactive substance	Males before treatment		Females before treatment		Total before treatment	
	No.	%	No.	%	No.	%
Tobacco	9	25	12	14.3	21	17.5
Alcohol	2	5.6	0	0	2	1.7
Benzodiazepines:	6	16.7	10	11.9	16	13.3
Lorazepam	3	8.3	4	4.8	7	5.8
Diazepam	1	2.8	2	2.4	3	2.5
Alprazolam	1	2.8	2	2.4	3	2.5
Chlordiazepoxide	1	2.8	1	1.2	2	1.7
Clonazepam	0	0	1	1.2	1	0.8
Total	17	47.2	22	26.2	39	32.5

This table shows that 39 patients (32.5%) of the 120 patients with GAD fulfill the criteria for psychoactive substance abuse or dependence. Males = 17 patients (47.2% of total males). Females = 22 patients (26.2% of total females).

Table 3: Distribution of patients with GAD in relation to psychoactive substance abuse and dependence 6 months after treatment.

Psychoactive substance	Males before treatment		Females before treatment		Total before treatment	
	No.	%	No.	%	No.	%
Tobacco	6	16.7	8	9.5	14	11.7
Alcohol	1	2.8	0	0	1	0.8
Benzodiazepines:	0	0	1	1.2	1	0.8
Lorazepam	0	0	1	1.2	1	0.8
Diazepam	0	0	0	0	0	0
Alprazolam	0	0	0	0	0	0
Chlordiazepoxide		0	0	0	0	0
Clonazepam	0	0	0	0	0	0
Total	7	19.4	9	10.7	16	13.3

This table shows that after treatment, the patients with psychoactive substance abuse or dependence decrease to 16 patients abuse or dependence decrease to 16 patients (13.3%). Males decreased to 7 (19.4%) and females to 9 (10.7%).

DISCUSSION:

This study showed that 32.5% of the studied patients with GAD before starting treatment had substance abuse or dependency; tobacco 17.5%, benzodiazepines 13.3% (lorazepam 5.8%, diazepam 2.5%, alprazolam 2.5%, chlordiazepoxide 1.7% and clonazepam 0.8%) and alcohol 1.7%, but six months after treatment and follow up the rate of abuse and dependence is decreased to 13.3% (tobacco 11.7%, alcohol 0.8%, and lorazepam 0.8%). There was high percent of dependency on tobacco (17.5%) in comparison to alcohol (1.7%); which may be related to the fact that alcohol drinking is relatively not accepted by the social norms and religion in our country in comparison to the western countries, while tobacco is more accepted culturally than other psychoactive substances including alcohol. The study results agree with other studies which revealed that nicotine has both stimulant and relaxing effects, it produces an alerting effect on the electroencephalogram, and in some individuals an increased capacity to focus attention, while in others it reduces anxiety and irritability [10], so most smokers identify "stress reduction" as a major determinant of their habit saying that smoking helps them to relax [11], probably these facts explain the high rate of consumption of tobacco among the study sample. Also a complex relationship presents between alcoholism and anxiety disorders, where these disorders co-occur far more commonly than would be expected by chance [12]. Alcohol has a sedative and hypnotic effect similar to those of barbiturates [10]. It promotes conviviality, eases tensions, and releases inhibition [13], this supports that consumption of alcohol is usually higher in patients with GAD. In this study, six months after starting treatment, the decrease in psychoactive substance abuse and dependence on benzodiazepines was greater (13.3% to 0.8%) than that on tobacco (17.5% to 11.7%) or alcohol (1.7% to 0.8%), and this may be attributed to the social acceptance and sometimes encouragement for smoking habit by the widespread use between people and its availability in every where with relatively low price. Also psychoactive substance abuse and dependence on benzodiazepines may be related more to GAD, which when treated well, the cause behind that may be abolished, and so supporting stoppage of these drugs, especially when a scientific tapering schedule was put to stop these drugs, where most of the patients mentioned that when they tried to stop these drugs previously a withdrawal features developed and so they restart to take the drug again. The present study results agree with Rickels K, et al. study which showed that chronic benzodiazepine users who have been unsuccessful in prior taper attempts can be withdrawn from benzodiazepines, facilitated by short-term prescription of imipramine. Success was defined as being benzodiazepine-free three months later. The success rate was significantly higher for imipramine (82.6%, $p<.01$) and not quite significantly higher for buspirone (67.9%, $p<.06$) compared to placebo (37.5%). 80% of those benzodiazepine-free at 3 months were still benzodiazepine-free at 12 months [14]. The dependence on benzodiazepines often results from prolonged medical use but may also results from the availability of benzodiazepines as street drugs because of their euphoriant effect and calming effect[15], such finding was comparable to the present study.

CONCLUSIONS :

1. GAD appears to enhance the development of psychoactive substance abuse and dependency.
2. Treating GAD encourages the abstinence from psychoactive substances.
3. Imipramine in sufficient doses ranging from (35-75mg/day), with counseling toward decreasing anxiety by reassurance and anxiety management including relaxation training appears to have a good therapeutic effect against GAD with low risk for abuse.

RECOMMENDATIONS :

1. Benzodiazepines should only be given according to a physician's prescription, and they should not be available as street drugs.
2. Physicians who are considering treating GAD with benzodiazepines should first weight the alternatives, the prescription refills should be monitored carefully and the drug should be tapered if continuous use exceeds one month.
3. The physicians should advice the patient to consult a psychiatrist if they found that the patient is in need to take the benzodiazepine drug more than one month.

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