REVIEW ARTICLE

Mood Disorders And Anxiety Disorders: How Much Is The Overlap? And What Are The Implications?

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Abstract : *Ever since Kraepelinian times, the distinction between anxiety and depressive states remains an ongoing subject of debate. Although conceptually different, all clinicians and researchers alike are struck by the common co-occurrence of depressive and anxiety symptoms in the same patients. This review aims to update our current knowledge in this clinically and conceptually important area. It focuses on several areas of "overlap" between mood and anxiety disorders: diagnostic, nosological, etiological, and management overlap, and also the correlates and consequences of such overlap (i.e., their implications). There is a large co-occurrence of syndromal diagnoses of both mood and anxiety disorders, presence of symptoms not meeting the syndromal criteria of one in the presence of syndromal diagnosis of other, and presence of both mood and anxiety symptoms and none of them meeting the syndromal criteria. Etiologically, it has been postulated that same areas of brain and same neurotransmitters are involved in both mood and anxiety disorders. There has been linkage between mood and anxiety disorder in family studies, and similar psychological and environmental factors contribute to the development of mood and anxiety symptoms. Patients with comorbid bipolar and anxiety disorders have younger age of onset, more pernicious course in terms of increased prevalence of suicide, increased number of psychotic and mixed features, poor quality of life, higher rate of substance abuse and worse response to treatment. Finally, drugs initially used for mood disorders now constitute the first-line major group of drugs to treat anxiety disorders. Some drugs initially used for anxiety disorders are used in the treatment of mood symptoms especially in the initial part.*

INTRODUCTION

The distinction between anxiety and depressive states remains an ongoing subject of debate. Kraepelin described mixed states of manic-depressive insanity as 'depressive or anxious mania… a morbid state… composed of flight of ideas, excitement, and anxiety… mood is anxiously despairing'. He also described 'excited depression… great restlessness… mood is anxious, despondent, lachrymose, irritable, occasionally mixed with a certain self-irony'.[1]

Some investigators think that the two disorders occur along a single continuum with different patients manifesting different symptoms along a spectrum of disorders. Others believe that anxiety and depression are clearly separate entities.[2] Mood and anxiety disorders have traditionally been classified separately in the standard nosological systems. During the past two decades the relationship between the mood and anxiety disorders has been examined closely.

This review aims to update our current knowledge in this clinically and conceptually important area. For this purpose, we conducted multiple internet searches on PubMed, Google Scholar and other relevant search engines, using several combinations of key words such as mood disorders, anxiety disorders, comorbidity, dual

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diagnosis, mixed anxiety & depression, bipolar, bipolar affective disorder (BPAD), depression, panic, phobia, post traumatic stress disorder (PTSD), obsessive compulsive disorder (OCD), generalized anxiety disorder (GAD), and overlap. We followed the lead from key relevant articles and searched the links to related articles from there. Wherever possible, we accessed the full text of the articles, either by manual search in the library or by electronic means.

The voluminous data thus obtained were then categorized, for the purpose of this review, into several areas of "overlap": namely, diagnostic, nosological, etiological, and management overlap, and also the correlates and consequences of such overlap (i.e., their implications).

OVERLAP DUE TO DIAGNOSTIC ISSUES

It is generally accepted that approximately two thirds of patients with depression have a comorbid anxiety disorder and one third or more of patients with panic disorder or generalized anxiety disorder (GAD) also have depression.[3]

SYNDROMAL COMORBIDITY

1. Comorbid Anxiety in Depressive Disorder

The WHO collaborative study found that depression was 9 times more likely to develop in patients with anxiety disorders compared with no mental illness, with 39% of patients with current depression also having an anxiety disorder.[4] Two studies[5,6] found lower rate of comorbid generalized anxiety disorder, phobic anxiety and especially panic attacks in depressed elderly subjects than found in similar studies involving the younger adults.[7,8] One study found that 38% of 45 elderly outpatients with major depression also met the DSM-III-R criteria for anxiety disorder.[9] In the National Comorbidity Survey database, 58% of respondents with major depression also had an anxiety disorder. The rates of comorbidity in depressed patients were 24.3% (simple phobia), 27.1% (social phobia), 17.2% (GAD), and 9.9% (panic disorder).[10] Data from the Munich Follow-Up Study revealed that 44% of patients diagnosed with major depression also met the criteria for at least one anxiety disorder.[11]

2. Comorbid Anxiety in Bipolar Affective Disorder (BPAD)

According to one study the prevalence of any anxiety disorder comorbidity in BPAD was 54% when meeting the criteria of BPAD.[12] In the univariate analysis, panic disorder, OCD and GAD were more common among individuals with BPAD compared with those with major depressive disorder (MDD). With the multivariate logistics model, a lifetime diagnosis of panic disorder and current GAD were also both significantly more common among persons with BPAD.[13] In the Epidemiologic Catchment Area (ECA) study, among patients with BPAD, 21.0% had lifetime panic disorder and 21.0% had lifetime OCD, as compared to 0.8% and 2.6%, respectively, in the general population group.[14] In another study of 149 inpatients with affective disorders, it was found that 35% of 37 patients with bipolar disorder had comorbid OCD, which was similar to the prevalence of OCD among patients with unipolar depression.[15]

In the National Comorbidity Survey (NCS), 92.9% of the persons who met criteria for lifetime bipolar I disorder also met criteria for a lifetime anxiety disorder, as compared to 24.9% of the general population sample. Further, 47.2% of persons with bipolar I disorder were found to have comorbid social phobia, as compared to 13.3% of the general population group.[16] In the same survey, the estimated lifetime prevalence of any anxiety disorder in BPAD was estimated at 92.9% versus 72.0% for alcohol abuse. Specific phobia was the most prevalent anxiety disorder comorbidity (66.6%) while panic disorder was the least prevalent (33.1%).[17] According to the ECA study the lifetime rates of OCD were significantly

higher in the BPAD versus the MDD group (21.0% and 12.8%, respectively, versus 2.5% in the general population).[17,18] An analysis of the ECA survey database also reported that the lifetime prevalence of panic disorder was significantly higher amongst persons with BPAD (20%) versus MDD (10.0%) and the general population (0.8%).[19]

3. Comorbid Depression in Anxiety Disorders

The WHO collaborative study found that 44% with a current anxiety disorder have a comorbid depression.[4] In another study of elderly major depression was more common in panic disorder and OCD (50% and 44.4%, respectively) than in general anxiety disorder and social phobia (30.3% and 25.0%, respectively).[20]

4. Comorbid BPAD in Anxiety Disorders

According to one study the prevalence of BPAD (3.5%) was not significantly increased amongst patients with social phobia in contradistinction to MDD (70.2%).[21] The estimated prevalence of bipolar spectrum disorders in the general population is approximately 2–4%.[22] The rate of BPAD-II was more frequently associated with social phobia (21.1%) and OCD (17.7%) than with panic disorder (5.0%).

SUB-SYNDROMAL COMORBIDITY

1. Comorbid Anxiety in Depression

In a study of 200 patients who were diagnosed with major depressive disorder (MDD) using Research Diagnostic Criteria, 72% had moderate to severe levels of worry, 62% had moderate to severe levels of psychic anxiety, 29% reported panic attacks, and 19% had phobic symptoms of at least moderate severity.[23] An earlier study found 88% of the patients reported either persistent or episodic tension, 28% had agoraphobic symptoms, and 17% had panic attacks.[24]

Symptoms commonly associated with anxiety states that may emerge in depressed patients include panic attacks, depersonalization, derealization, emotional lability, sleep disturbances, and agitation.[25] In a study of elderly nursing home residents, 65% of those with major depression also displayed concurrent symptoms of anxiety, but very low rate of panic attacks were seen.[26] In another retrospective study involving 336 elderly inpatients and out patients with major depression, one third to one half had severe anxiety symptoms, but 8% had only diagnosable anxiety disorder.[27]

2. Comorbid Anxiety in BPAD

According to one study the prevalence of any anxiety disorder comorbidity in BPD was 54% when not meeting the syndromal criteria of BPAD.[12] In a recent study of 316 inpatients with DSM-III-R manic or mixed episodes, 39% were rated as having some degree of anxiety.[28]

NOSOLOGICAL OVERLAP

Till the advent of ICD-10, there was no nosological overlap category between mood and anxiety syndromes in any official classificatory system. ICD-10, for the first time, introduced such a category, viz., Mixed Anxiety Depressive Disorder (MAD), where an individual has both anxiety and depressive features that are a cause for clinical concern, but neither set of symptoms meets the criteria for an independent mood or anxiety disorder.

Mixed anxiety-depressive disorder may occur in 1 to 4% of primary care patients.[29,11,3] Estimates of community prevalence have been relatively low, ranging from 1 to 13%,[11,30-33] although there seems little doubt that these patients are quite common in primary-care settings.[11,30,31,34] Furthermore, these patients may demonstrate a relatively poor prognosis and significant disability;[35] subsyndromal cases appear to be at greater risk of developing syndromal illnesses in

follow-up studies.[30,36] In a report from the DSM-IV field trial, Zinbarg et al.[37] concluded that patients with mixed anxiety-depression are characterized by less prominent symptoms of pervasive anhedonia and low interest or motivation compared with patients with major depression and less pervasive worry than patients with GAD. The validity of mixed anxiety depression as a formal diagnostic category has been debated for many years,[37-40] and although it was added as a formal diagnostic category in ICD-10,[41] it appears in the appendix of DSM-IV. In studies of MAD, prevalence rates for subthreshold symptoms of anxiety and depression vary from 0.8% in the Munich Follow-Up Study[11] to 11.7% in mental health outpatients in the DSM-IV field trial for MAD.[37] Weisberg et al.[42] found that 0.2–0.6% of primary care patients in their sample qualified for a DSM-IV diagnosis of MAD. Approximately 70% of these patients remitted by the 6-month follow-up, and 80% remitted by 12 months after the initial interview. One additional published study[43] based on the ICD-10 investigated the course of MAD and found that MAD is not a stable diagnosis. Only 1.2%of patients with a MAD diagnosis at baseline qualified for a MAD diagnosis at follow-up. Approximately 49% of patients had no ICD-10 diagnosis after a year, 27% had a depressive or anxiety disorder diagnosis, and 22% of patients had a diagnosis other than depressive or anxiety disorder.[43]

ETIOLOGICAL OVERLAP

A. Biological Overlap

1. Neurotransmitter systems

Noradrenaline

In bipolar disorder, noradrenergic activity has been demonstrated to be higher in mania than in depression across patient groups[44] and within an individual.[45] Also, indices of noradrenergic activity have been correlated with the severity of mania, and not with psychomotor agitation.[46] Moreover, in a study of 22 medication-free acutely manic patients,[47] patients had significant elevations in cerebrospinal fluid (CSF) nor epinephrine concentrations compared with depressed and euthymic patients and with normal volunteers, and the degree of elevation correlated significantly with the degree of manic dysphoria, anger, and anxiety. Investigators demonstrated increased norepinephrine turnover, as estimated by the ratio of neither MHPG (3-methoxy-4-hydr-oxyphenylglycol) to nor epinephrine, in specific brain regions of patients with bipolar disorder irrespective of affective state.[48]

DOPAMINE

Regarding bipolar disorder, increased CSF, plasma, and urinary levels of the dopamine shown to be present in acute mania.[49] Regarding anxiety disorders, an elevated growth hormone response to apomorphine, a dopamine agonist, in panic disorder suggests dopaminergic overactivity.[50]

GAMMA-AMINO BUTYRIC ACID (GABA)

Gerner et al.[51] found that GABA levels were significantly lower in the depressed group than in the manic, schizophrenic, or control groups. No significant differences in GABA levels were found between unipolar and bipolar depressed patients, and between manic patients and controls. Other investigators have found decreased GABA levels in patients with acute depression.[52] Roy et al.,[53] found no significant differences in CSF GABA levels when 25 patients with depression (unipolar and bipolar), were compared with controls. However, when the data were further analyzed, a subgroup of patients with unipolar melancholic depression had significantly lower levels. Benzodiazepines, which act on GABA receptors, have been proven effective in generalized, panic, and social anxiety. Enhancing GABA transmission has been suggested to promote anxiolysis.[54]

SEROTONIN

There are data to suggest reduced levels of the major serotonin metabolite, 5-hydroxy-indoleacetic acid (5-HIAA), in post mortem brain regions of bipolar patients.[48] Other studies, however, have shown no trait abnormalities in CSF levels of 5-HIAA.[55] In panic disorder the most compelling hypothesis is that of reduced central serotonin levels[56] and subsequent hypersensitivity of postsynaptic serotonin receptors.[57] In OCD, there does not seem to be any basal serotonin abnormalities as reflected in normal CSF levels of 5-HIAA as compared to controls. Strong support for involvement of the serotonergic system in anxiety disorders in general is provided by the increasing number of controlled trials showing that serotonin reuptake inhibitors are efficacious treatments for OCD,[58] panic disorder,[59] social phobia,[60] GAD,[61] and PTSD.[62]

2. Neurobiological Overlap

Targum[63] demonstrated that significantly more patients with panic disorder (65%) or major depressive disorder with comorbid panic disorder (56%) experienced an anxiogenic reaction to intravenous lactate infusion when compared with patients with major depressive disorder alone (19%) or with controls (0%) (p<0?.035). It is hypothesized that there is a continuum from normal arousal to anxiety to depression. Normal arousal occurs by increasing the excitability and firing rates of neurons in the serotonin, GABA-ergic, and noradrenergic systems. Sustained arousal may deplete neurotransmitters in critical forebrain areas, which might precipitate the emotional and somatic symptoms of depression.[64] Up to 50% of patients with major depression demonstrate HPA axis dysregulation and subsequently do not suppress cortisol after dexamethasone administration. Approximately 30% of patients with GAD and 10% of patients with panic disorder also are nonsuppressors.[65]

Gray[66] proposed a neuroanatomical model suggesting that threatening experiences activate noradrenergic cells in the locus coeruleus and ventral bundle; rising efferents from these sites in turn activate both the septohippocampal system and the hypothalamus, signaling the need for an appropriate behavioral response. Gray further suggested that anxiety is the product of the stimulation of the septohippocampal system by the locus coeruleus, while depression is secondary to the exhaustion of noradrenergic input to the hypothalamus (resulting in the vegetative symptoms of depression). This noradrenergic exhaustion occurs as a result of repeated stimulation of the neuronal cell bodies—a process that, if sustained, depletes neurotransmitter stores. Gray hypothesized that should the environmental stressor continue, septohippocampal noradrenergic transmission also ultimately fails. This hypothesis nicely fits the clinical data on comorbidity of anxiety and depression in that (a) it predicts that anxiety is an integral part of depression as sequelae of chronic stress and (b) when the stress is unremitting and noradrenergic input to the septohippocampal system "crashes," a state of relatively pure depression emerges. This prediction is reminiscent of the previously reviewed dimensional data in mixed anxiety-depression, suggesting that the two syndromes can be most readily differentiated at the extremes of pathology.

3. Genetic Overlap

Patients with comorbid depression and GAD have twice as many relatives with depression as patients with either depression or GAD alone.[67] Relatives of patients with major depression alone also exhibit a higher incidence for developing anxiety disorders.[64] Weissman et al.[68] found rates for GAD to be twice as high in the relatives of probands with major depressive disorder (MDD) vs. control. Angst et al.[69] utilizing epidemiological proband sample found increased rates of anxiety

and depression in parents of subject who had anxiety only, depression only, and depression and anxiety. According to Kendler et al.[70] no evidence could be found for genes that specifically affect symptoms of depression without influencing the symptoms of anxiety. There are some environmental risk factors for MDD and GAD that is shaired in common; a substantial portion of factors is unique to each other. Common or familial environment played no role in the etiology of MDD and GAD and therefore could not possibly influence their co-occurrence and individual specific environmental risk factors are solely responsible for the differentiation between MDD and GAD. MacKinon et al.[71] analyzing chromosome 18 linkage data on 28 families with Bipolar Disorder, found that linkage scores for 5 consecutive 18q marker loci were highest in the families with the probands with comorbid panic disorder.

B. Psychological Overlap

Increased negative and decreased positive affect during agonistic social interactions may have their counterparts in specific clinical syndromes that may either occur alone or in combination with each other. When an individual competes for a secure place in society (e.g. vying to be chosen as a lover, teammate, or employee) and fails, or when he/she is involved in an agonistic encounter that carries a risk of injury, the triggering of a negative affect serves to warn him/her about the risks involved with continuing the struggle. Conversely, a low positive affect serves to decrease the individual's motivation to continue to meet the challenge. Both of these affects are capable of triggering disengagement and preventing a renewed conflict or struggle from arising. When there is a failure of reconciliation, or when flight is not possible, the mechanisms associated with low positive affect or high negative affect may go into overdrive and become maladaptive by operating at a greater intensity and/or over a prolonged period of time. For this reason, individuals with Separation Anxiety may continue to pursue reconciliation, even when it is inappropriate, people with Panic Disorder are intent on escape, even in the absence of obvious danger, and people with social anxiety and depression find it difficult to assert themselves with people of equal or higher status. On the other hand, the person facing inevitable defeat may remain in 'fight mode' because he/she feels a sense of injustice, or unfairness.[72] In many patients with atypical depression and bipolar II disorder, interpersonal sensitivity and mood overreactivity with cyclothymic-anxious-impulsive temperamental disposition might represent the mediating common denominator in the complex syndromic pattern of mood, anxiety and impulsive disorders.[53]

TRIPARTITE MODEL

Clark and Watson[73] reviewed the relevant literature and proposed a tripartite model. In this model, symptoms of depression and anxiety are subdivided into three broad groups. First, many symptoms of both constructs are strong markers of a general distress or negative affect factor and are, therefore, relatively nonspecific. In other words, these symptoms are commonly experienced by both anxious and depressed individuals. This nonspecific group includes both anxious and depressed affect, as well as other symptoms (e.g., insomnia, restlessness, irritability, poor concentration) those are prevalent in both types of disorder. In the tripartite model, these nonspecific symptoms are primarily responsible for the strong association between measures of anxiety and depression.[73] In such a model, anxiety is viewed as an enduring trait. The high degree of correlation between anxious and depressive symptoms, as well as the increased correlation observed with time is explained by the presence of a stable core of anxiety symptoms embedded within fluctuating levels of affective

symptoms, which, unlike the relatively stable symptoms of chronic anxiety, may completely remit. The intensity of the anxiety, as well as the depression, likely varies according to life events occurring over the course of time. Life events have been shown to precipitate major depressive episodes,[74,75] perhaps through the effects of such events on gene transcription and, ultimately, on neuronal structure and function as hypothesized by Post.[76,77] Symptoms reflecting anhedonia and the absence of positive emotional experiences (e.g., feeling disinterested in things, lacking energy, feeling that nothing is enjoyable, having no fun in life) are relatively specific to depression. In contrast, manifestations of somatic tension and arousal (e.g., shortness of breath, feeling dizzy or lightheaded, dry mouth, trembling or shaking) are relatively specific to anxiety.[73]

C. Social Overlap

Environmental risk factors for the development of anxiety disorders as well as depression are poverty, exposure to violence, social isolation, and repeated losses of interpersonal significance.[78] However, research in this area is very meager.

CONSEQUENCES & CORRELATES OF OVERLAP

Age of Onset

The NIMH-sponsored large multicentre study on bipolar disorder from the USA, entitled 'Systematic Treatment Enhancement Program for Bipolar Disorder' (STEP-BD), has generated valuable data on the bipolar-anxiety comorbidity and its correlates.[79-82] It showed that bipolar participants with a lifetime anxiety disorder had a significant lower age at onset (mean = 15.6 years) than subjects without anxiety (mean = 19.4 years).[79]

Course and Severity

In a prospective study, again from the STEP-BD as mentioned above, anxiety disorder comorbidity in bipolar patients was associated with the estimated loss of 39 days of being well relative to patients without anxiety comorbidity; further, patients with anxiety disorders assessed during a period of recovery relapsed into a new mood episode more quickly.[80] Bipolar subjects with OCD were more likely than those without OCD to have higher lifetime rates of thoughts of death and suicide, of wanting to die, of suicide attempts, and of panic disorder also. Unlike OCD patients without bipolar disorder, those with bipolar disorder reported a more gradual onset of OCD, a more episodic course of OCD symptoms, a greater frequency of concurrent major depressive episodes, higher rates of sexual and religious obsessions, and a lower rate of checking rituals.[83] In a prospective study the presence of anxiety disorder (primarily social phobia) enhanced the risk of persisting depression for patients who were depressed at study entry.[83] Depressed patients with panic attacks are significantly more likely than those without panic attacks to manifest such core depressive symptoms as guilt, terminal insomnia, anorexia, anhedonia, agitation, lack of reactivity, dysphoria, negative self-evaluation, fatigue, and difficulty concentrating.[77] It does not appear that such findings are unique to panic disorder. In the Epidemiologic Catchment Area study, while 20% of the individuals with a lifetime diagnosis of panic disorder reported a history of suicide attempts, 18% of the patients with panic and 12% of those with social phobia reported such a history. Both studies concluded that the increased risk of suicide attempts in anxious patients was in part due to coexisting depression, although the magnitude of this effect was uncertain.[77]

SUBSTANCE ABUSE AND SUICIDAL BEHAVIOR

STEP-BD data suggested that alcohol and substance abuse are common among patients with bipolar disorder but that of alcohol

dependency was doubled in the presence of an associated anxiety disorder (17.7% Vs 35.0%) and of substance abuse markedly increased (15.9% Vs 25.1%).[79] Similarly, recent data from the same group showed that a lifetime diagnosis of any anxiety disorder more than doubled the odds of a past suicidal attempt in bipolar patients, and current anxiety comorbidity again more than doubled the odds of having current suicidal ideation in these patients.[81] In another recent publication, this link was attributed primarily to the endless depressive ruminations seen in anxious bipolar patients.[82]

QUALITY OF LIFE AND SOCIAL FUNCTIONING

In a prospective study current anxiety comorbidity was associated with poorer quality of life and role functioning over the course of the year.[80] Comorbid anxiety disorders with bipolar disorders are associated with poor quality of life as determined by the quality of life and enjoyment scale.[79] Bipolar and comorbid anxiety can have a major economic and social impact on patients, their families and social associates. Patients can experience work, family and social impairment and made to contend with increased health care costs and strains on social support.[84]

TREATMENT ISSUES

Patients with bipolar disorder and comorbid anxiety have poor response to pharmacological and psychotherapeutic treatments.[79] Anxiety disorders are usually treated with antidepressants, which, not infrequently trigger hypomanic and mixed states in patients with bipolar diathesis.[85]

MANAGEMENT OVERLAP

Tricyclic antidepressants

More than 40 years ago, imipramine was recognized to be an effective antipanic agent.[86] Migraine also appears to be similar to alprazolam and chlordiazepoxide in terms of anxiolytic activity. According to results of two meta-analyses, clomipramine (a TCA with potent serotonergic properties) is efficacious in the treatment of OCD.[87]

Monoamine oxidase inhibitors (MAOIs)

The MAOIs are very effective in the treatment of depression and anxiety disorders, including panic disorder, and are superior to TCAs in the treatment of atypical depression.

Selective serotonin reuptake inhibitors (SSRIs)

SSRIs are effective in the management of anxiety disorders, such as panic disorder and OCD (88). SSRIs are now clearly established as the first line pharmacological treatment for most anxiety disorders.

Lithium

No controlled studies of lithium could be found in GAD, panic disorder, PTSD, or social phobia, However, two double blind trials of lithium augmentation (one with lithium and the other with thyroid hormone) in patients with OCD who were treatment resistant to SSRI therapy were negative .[88]

Divalporex

A preliminary controlled crossover trial, divalporex may decrease panic symptoms. Panic attack and generalized anxiety improved significantly more with divalporex in patients who received divalporex as there initial therapy compared with those who received placebo as their initial treatment.[88]

Carbamazepine

Carbamazepine was not effective in a study of 14 patients with panic disorder. Carbamazepine was associated with reduced frequency of panic attacks in 40% of patients, but it had no effect on 10% of patients and was associated with an increase in panic attack in 50% of patients.[88]

Atypical antipsychotics

In a study of 19 patients with combat related PTSD minimally responsive to 12 weeks of SSRI treatment, olanzapine augmentation was superior to placebo in specific measures of PTSD symptoms. Olazapine addition was associated with significant improvement in Clinician Administered PTSD Scale (CAPS) score, sleep disorder symptoms and depressive symptoms. As measured by Clinical Global Impression (CGI), response rates for to the olanzapine augmentation were relatively low (30%) and not statistically superior to placebo.[88] Olanzapine also did not produce a better treatment response than placebo in a randomized, double blind 10-week study in 15 patients with PTSD. In a study of 73 patients with chronic combat related PTSD, risperidone or placebo was added to stable psychotropic medication. Risperidone treated patients who completed their study had significantly greater reduction in their CAPS scores compared to placebo. In a study risperidone (N=20) or placebo (N=16) was given to patients with OCD who were refractory to12 weeks of treatment with an SSRI. Among patients who completed the study, 9 (50%) of the patients in the risperidone group responded compared to none in the placebo group. Response was defined as 35% or greater improvement in Yale-Brown Obsessive Compulsive Scale (YBOCS) score and final score less than equal to 16. Similarly, 20 patients receiving quetiapine as adjunctive therapy had significantly greater improvement in YBOCS scores compared to the placebo group, as well as higher percentage of responders, 55% vs. 10%.[88]

Gabapentin

It has been found to be effective in the treatment of social anxiety and panic disorder.

Benzodiazepines

Benzodiazepines have not been shown to have acute antimanic or long-term mood stabilizing properties, they are helpful for managing agitation, anxiety, insomnia, catatonic symptoms associated with bipolar disorder. Benzodiazepines are effective in panic disorder and GAD, but there have been no controlled studies of the use of these agents in bipolar disorder complicated by panic disorder or GAD.

CONCLUSION

It can be seen that there is a large co-occurrence of syndromal diagnoses of both mood and anxiety disorders, presence of symptoms not meeting the syndromal criteria of one in the presence of syndromal diagnosis of other, and presence of both mood and anxiety symptoms none meeting the syndromal criteria. It has been postulated that same areas of brain and same neurotransmitters are involved in both mood and anxiety disorders. There has been linkage between mood and anxiety disorder in family studies, and similar psychological and environmental factors contribute to the development of mood and anxiety symptoms.

It can be concluded that patients with comorbid bipolar and anxiety disorders have younger age of onset, more pernicious course in terms of increased prevalence of suicide, increased number of psychotic and mixed features, poor quality of life, higher rate of substance abuse and worse response to treatment.

Finally, drugs initially used for mood disorders now constitute the first-line major group of drugs to treat anxiety disorders. Some drugs initially used for anxiety disorders are used in the treatment of mood symptoms especially in the initial part.

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