Anxiety disorders in Late Life

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Introduction

In the United States, anxiety disorders are the most prevalent group of psychiatric disorders [1]. They cause significant social and functional impairments in individuals who are affected by these disorders [2]. Current data indicates that the prevalence of anxiety disorders in greater in the older adults than previously acknowledged [3]. The rates of anxiety symptoms that did meet the criteria for a psychiatric diagnosis in older adults were 15% to 20% in the general community and primary care samples [4]. The National Comorbidity Survey Replication (NCS-R) found that among adults older than 60 years in age, the prevalence of any anxiety disorder was 15.3%. Among the anxiety disorders, specific phobia was the most prevalent (7.5%) followed by social phobia (6.6%), generalized anxiety disorder (GAD) (3.6%), posttraumatic stress disorders (PTSD) (2.5%), panic disorder (2%), agoraphobia without panic (1%) and obsessive compulsive disorder (OCD) (0.7%) [1].

Risk factors

The risk factors for late life anxiety include chronic medical illnesses, disability, and major illness in spouse [3]. Other known risk factors included personality traits of neuroticism and low self-efficacy. In a longitudinal study, the onset of anxiety was best predicted by having a partner who developed a major illness [5]. However, older age and the presence of cognitive dysfunction are not known risk factors for the development of late life anxiety disorders. The presence of multiple risk factors concurrently appears to have an additive effect [5].

Consequences

In older adults the presence of anxiety is associated with reduced physical activity & functional status, poorer self-perceptions of health, decreased life satisfaction and increased loneliness [6-8]. Anxiety is also associated with decreased quality of life, increased service use and the overall greater cost of care [9,10]. The National Epilepticgiologic Survey on Alcohol and Related Conditions found that majority of individuals with GAD had a co-morbid mood or anxiety disorders [11]. In addition approximately one-quarter of individuals also met the criteria for a personality disorder. Data also indicates that higher levels of anxiety and vulnerability to stress are associated with increased risk of Alzheimer's disease (AD) and a more rapid decline in global cognition [12].

Assessments

Anxiety disorders in late life are often under-recognized and under-treated [4]. One study found that among older adults, primary care physicians only correctly made the diagnosis of any anxiety disorder in approximately 9% of the cases [13]. One reason for poor recognition include of anxiety disorders in the elderly is that the physical symptoms associated with anxiety especially sleep disturbances, fatigue, restlessness, difficulty-concentrating overlap with medical disorders that often occur in older adults. In addition, the current diagnostic criteria for anxiety disorders were developed for use in younger adults and hence are not sensitive enough to detect these disorders in older adults [14]. Furthermore, late life anxiety disorders are often co-morbid with depression, substance use disorders and cognitive disorders resulting in greater complexity in making the appropriate diagnosis [14].

A thorough history is an essential first step in making a diagnosis of an anxiety disorder in late life [14]. Additionally, a corroborative history should be obtained from a well-informed family member or significant other [15]. Furthermore, a mental status examination, formal cognitive testing, physical examination and laboratory testing are essential parts to the complete work-up of an individual with anxiety disorder. Standardized assessment scales like the Beck Anxiety Inventory (BAI) or the Hamilton Anxiety Rating Scale (HARS) will aid in qualifying and quantifying the symptoms of anxiety disorders [16,17]. Neuropsychological testing may be needed in cases where there is the co-morbid personality disorder and/or cognitive disorder.

Prevention

One study indicated that the stepped-care program where the participants sequentially received a watchful waiting approach, cognitive behavior therapy-based bibliotherapy, cognitive behavior therapy-based problem-solving treatment and a referral to a primary care clinician for medications, if required reduced the incidence of anxiety disorders in late life by almost 50% [18]. Additionally this care program was found to be cost-effective [19].

Treatments

A. Non-pharmacological

A meta-analysis of non-pharmacological interventions for late-life anxiety disorders that included a total of fifteen outcome studies found that psychological interventions were more effective than no treatment on self-rated and clinician-rated measures of anxiety with an effect size of 0.55 [20]. In another meta-analysis the investigators found that treatments for older adults with anxiety symptoms were on average, more effective than active control conditions [21]. The effect sizes were comparable to CBT for anxiety in the general population or for pharmacotherapy in anxious older adults. CBT (alone or augmented with benzodiazepines for the treatment

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of anxiety disorders indicate that three of the four benzodiazepines used in the studies are not available in the US (abecarnil, alpidem, Ketazolam) [22-25]. Also, these studies were of short duration as they lasted between 3 and 6 weeks. However, these drugs reduced anxiety to a greater extent than placebo and were fairly well tolerated.

Four RCTs of antidepressants indicates that these medications are helpful in the treatment of late anxiety disorders [26-29]. In a study by Sheikh and Swales, twenty-five older adults (55 to 73 years in age) with a DSM-III-R diagnosis of panic disorder were randomized to receive alprazolam, imipramine or placebo for eight weeks [26]. Both alprazolam and imipramine reduced the number of panic attacks per week and resulted in an improvement in the anxiety and depression scales at the end of the study when compared to baseline. Additionally, both drugs were well tolerated and their daily doses were about half the normal adult doses. In a pooled secondary analysis, Katz et al included data from one hundred and eighty four individuals ≥ 60 years in age with a DSM-IV diagnosis of GAD [27]. The participants received fixed or flexible doses of venlafaxine ER with a dose range of 37.5 to 225 mg a day or matched placebo. On the Clinical Global Impression of Improvement (CGI-I) 66% of the individuals in the venlafaxine ER group responded when compared with 41% in the placebo group (P < 0.01). Approximately, 23% of older adults in the venlafaxine ER group discontinued treatment prematurely when compared to 31% of the individuals in the placebo group. The investigators concluded that venlafaxine ER is safe and well tolerated in older adults for the treatment of GAD.

In a RCT, thirty-four participants ≥ 60 years in age with a DSM-IV diagnosis of anxiety disorder (mainly GAD) were randomly assigned to receive either citalopram or placebo for a period of eight weeks [28]. Eleven (65%) of the seventeen citalopram-treated participants responded by 8 weeks when compared to four (24%) of the seventeen placebo-treated participants. The most common side effects in both groups were dry mouth, nausea and fatigue. The investigators concluded that citalopram shows efficacy in the treatment of late-life anxiety disorders. Alaka et al conducted a flexible-dosed study to evaluate the efficacy and safety of duloxetine 30 to 120 mg once daily for the treatment of GAD in older adults [29]. At week 10, duloxetine was superior to placebo on mean changes from baseline on the rating scales (P < 0.001). Treatment-emergent adverse events occurred in ≥5% of duloxetine-treated individuals with a rate that was twice that of placebo including constipation, dry mouth and somnolence. The investigators concluded that treatment with duloxetine improved symptoms of anxiety and functioning in older adults with GAD and the drug's safety profile was consistent with previous GAD studies.

In a sequenced treatment that combined pharmacotherapy with cognitive-behavioral therapy (CBT) for individuals with GAD who were ≥ 60 years of age, the participants initially received 12 weeks of open-label escitalopram [30]. Then, these individuals were randomly assigned to one of four groups: 16 weeks of treatment with escitalopram (10 to 20 mg a day) plus modular CBT, followed by 28 weeks of maintenance escitalopram; escitalopram alone, followed by maintenance escitalopram; escitalopram plus CBT, followed by pill placebo; and escitalopram alone, followed by placebo. The investigators found that escitalopram augmented with CBT improved symptoms on the rating scales more that escitalopram alone. However, both escitalopram and CBT prevented relapses more often than placebo.

Available data indicates that any psychotherapeutic modality is better than no treatment for the treatment of anxiety disorders in late life. Among pharmacotherapeutic agents, benzodiazepines and antidepressants have shown benefit in treating anxiety disorders when compared to placebo.

Conclusions

Available evidence indicates that anxiety disorders are fairly common in late life. They are also associated with significant comorbidity and mortality in late life. These disorders are often underdiagnosed or misdiagnosed in late life due to their symptomatic overlap with medical conditions, drug effects and the lack of standard diagnostic criteria developed specifically for detecting anxiety disorders in older individuals. Current data indicates efficacy for both psychotherapeutic and pharmacotherapeutic modalities for anxiety disorders in late life.

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