Anxiety disorders in late life

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ABSTRACT

OBJECTIVE To review the epidemiology, clinical characteristics, and treatment of anxiety disorders in late life.

QUALITY OF EVIDENCE Epidemiologic and comorbidity data are derived from well designed random-sample community surveys. There are virtually no controlled data specific to treatment of anxiety in the elderly. Guidelines for treating anxiety disorders in late life, therefore, must be extrapolated from results of randomized controlled trials conducted in younger patients.

MAIN MESSAGE Generalized anxiety disorder and agoraphobia account for most cases of anxiety disorder in late life. Late-onset generalized anxiety is usually associated with depressive illness and, in this situation, the primary pharmacologic treatment is antidepressant medication. Most elderly people with agoraphobia do not give a history of panic attacks; exposure therapy is the preferred treatment for agoraphobia without panic.

CONCLUSIONS Physicians need to make more use of antidepressant medication and behavioural therapy and less use of benzodiazepines in treating anxiety disorders in late life.

RÉSUMÉ

OBJECTIF Passer en revue l'épidémiologie, les caractéristiques cliniques et la prise en charge des troubles d'anxiété chez les personnes âgées.

QUALITÉ DES DONNÉES Les données épidémiologiques et sur la comorbidité sont tirées d'études bien conçues à échantillonnage aléatoire dans la collectivité. Il n'existe presque pas de données contrôlées portant précisément sur le traitement de l'anxiété chez les personnes âgées. Les lignes directrices pour le traitement des troubles d'anxiété durant l'âge mûr doivent donc être extrapolées des résultats d'études aléatoires contrôlées effectuées chez des patients plus jeunes.

PRINCIPAL MESSAGE Les troubles d'anxiété généralisée et l'agoraphobie comptent parmi les cas les plus fréquents d'anxiété chez les personnes âgées. L'anxiété généralisée d'apparition tardive est habituellement associée à une maladie dépressive et, dans de tels cas, la principale pharmacothérapie est de recourir aux antidépresseurs. La majorité des personnes âgées qui souffrent d'agoraphobie n'ont pas d'antécédents du syndrome de la panique; une thérapie d'exposition est le traitement de choix pour l'agoraphobie sans panique.

CONCLUSIONS Les médecins doivent utiliser davantage les antidépresseurs et les thérapies du comportement et moins recourir aux benzodiazépines dans le traitement des troubles d'anxiété chez les gens d'âge mûr.

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Symptoms of anxiety lie on a continuum of severity ranging from a short-lived, appropriate response to a threatening situation to a chronic pathologic state that causes great distress and interferes with social and occupational functioning. The term anxiety disorder is used to describe conditions in which pathologic anxiety is the predominant feature. These conditions include phobic disorders, panic disorder, generalized anxiety disorder, posttraumatic stress disorder (PTSD), and obsessive-compulsive disorder (OCD).[1]

Although anxiety disorders in general are less prevalent among the elderly than among younger adults, they remain relatively common in late life.[2] For example, the Epidemiologic Catchment Area Study, which surveyed adults in five areas of the United States, found that 5.5% of people aged 65 or older met criteria for phobic disorders, panic disorder, or OCD in the month preceding the survey.[3] In addition, generalized anxiety disorder, which was examined at three of the five sites, was diagnosed in 2.2% of elderly people.[4] People with anxiety disorders make heavy use of medical services,[5] but despite this, most cases of anxiety disorder in late life are not diagnosed or treated.[6,7]

When treatment is given, benzodiazepines are overused and antidepressant medications and behavioural therapies are underused.[6,8,9] Because the consequences of untreated or inadequately treated anxiety are distress, functional impairment, and increased medical morbidity and mortality,[10-12] physicians need to learn more about detection and appropriate treatment of anxiety disorders in the elderly. This article reviews the epidemiology, clinical characteristics, and management of these disorders in late life.

Quality of evidence

MEDLINE was searched to identify relevant English-language articles published from 1980 to 1998. Key words used in the search were "aged" in combination with each of "anxiety disorders" and "anxiety," and "anxiety disorders" in combination with "controlled clinical trials." The bibliographies of retrieved articles were reviewed to identify other relevant papers.

Epidemiologic data reported in this article are derived from well designed random-sample community surveys conducted in North America and Europe. Only one of these surveys was undertaken in Canada (in Edmonton). These studies report prevalence rates in people aged 65 or older for periods ranging from 1 month to 12 months preceding the survey (period prevalence). Data on comorbidity are derived either from these epidemiologic surveys or from clinical samples. Treatment data specific to the elderly are derived from case reports or uncontrolled studies and, therefore, are generally weak. For the most part, guidelines on treating anxiety disorders in late life must be extrapolated from the results of randomized controlled trials in younger adults.

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Anxiety disorders

Anxiety disorders have a mean age of onset in the 20s.[13] Left untreated, they tend to be chronic, with symptoms that are either continuous or episodic.[13] Most primary anxiety disorders in late life have persisted from younger years.[2] New-onset anxiety in elderly people is often associated with depressive illness or medical disorders.[2] At any age, anxiety disorders are more common in women than men.[2]

Phobic disorders. Phobias are characterized by persistent and irrational fears of situations, objects, or activities that result in a compelling desire to avoid phobic stimuli. Phobias include agoraphobia, specific or simple phobia, and social phobia.[1]

Most epidemiologic studies have found that phobias are the most common anxiety disorder in late life. Period prevalence ranges from 0% to 12%, with a median rate of 3.1%.[3,6,8,14-17] Agoraphobia is more common than specific phobia or social phobia.[6,8,15] In contrast with other anxiety disorders, many cases of agoraphobia in late life are new-onset.[18] In younger people, agoraphobia is usually a conditioned response to panic attacks.[19] Elderly people with agoraphobia, however, rarely give a history of panic attacks,[8,18] and other factors appear to be related to onset of this disorder in old age. Lindesay[18] found that many subjects with late-onset agoraphobia attributed the start of their fears to traumatic events, such as physical illness, falls, or muggings.

In evaluating whether an elderly person has a phobic disorder, it is important to assess the appropriateness of the anxiety. Some people might be mistakenly labeled agoraphobic when their avoidance of a situation is, in fact, realistic. For example, a frail person who has had several falls on the street might subsequently refuse to leave the house because of a valid concern about further falls and injury. Conversely, some elderly people might be reluctant to leave home because they misattribute symptoms of anxiety (eg, chest tightness, dyspnea, or dizziness) to medical conditions and fear they will collapse on the street.

Case 1

A 79-year-old widow, who had always been somewhat anxious, suffered a myocardial infarction, was hospitalized for a few days, and was then discharged home. She made a full physical recovery but, despite this, lost confidence in going out by herself and eventually became housebound unless accompanied by her daughter. She was concerned that her heart was too weak for her to safely leave the house and, as evidence of this, cited occasional feelings of dizziness and shakiness.

Generalized anxiety disorder. This disorder is characterized by excessive anxiety and worry accompanied by motor tension (muscle tension, restlessness, fatigue) and hypervigilance (difficulty concentrating, irritability, insomnia).[1] The disorder is chronic; symptoms occur on most days for 6 months or more.[1] It differs from panic disorder in that the symptoms are pervasive and do not occur as discrete episodes.[1]

Generalized anxiety disorder is the second most common anxiety disorder among the elderly. Period prevalence rates range from 0.7% to 7.1%, with a median rate of 2.2%.[4,6,8,15-17] Generalized anxiety seldom starts as a "pure" disorder in late life, and most cases of late-onset generalized anxiety are associated with depressive illness.[8,20-22] Therefore, if older people have symptoms of generalized anxiety, clinicians should always enquire about core depressive symptoms. Anxiety that is symptomatic of depression usually resolves with appropriate antidepressant treatment.[23] Occasionally, however, anxiety symptoms persist and, in these cases, there could be increased risk of depressive relapse or recurrence.[23]

Case 2

A 73-year-old divorced woman was referred to a psychiatrist for assessment of an anxiety state. Symptoms had started 12 months previously, following the death of her sister. Her principal complaints were pervasive worry; difficulty falling asleep; and feeling nervous, restless, keyed up, and irritable. To further enquiry, however, she also described depressed mood with diurnal variation, loss of interest and pleasure, early morning wakening, poor appetite, and feelings of hopelessness. Her family doctor had prescribed lorazepam 0.5 mg as needed and, although this had resulted in some improvement in her anxiety and initial insomnia, it had not helped the other depressive symptoms. Following treatment with antidepressant medication and grief therapy, her symptoms of depression and anxiety completely resolved.

Panic disorder. Panic disorder is characterized by recurrent attacks of panic. A panic attack is a discrete period of intense fear or discomfort during which some somatic symptoms of anxiety, such as dyspnea, chest pain, palpitations, dizziness, and choking, develop abruptly and reach a peak within 10 minutes.[1]

Epidemiologic studies have found that panic disorder is uncommon in late life, with period prevalence rates of 0.3% or less.[3,6,8,14] This disorder rarely starts for the first time after the sixth decade of life.[2] When elderly people do experience panic attacks, symptoms are similar to those experienced by younger people, although patients with late-onset panic attacks might have fewer symptoms and might do less to avoid the attacks than younger people.[24] Most late-onset panic attacks are associated with depressive disorders or medical illnesses, in particular cardiovascular, gastrointestinal, and chronic pulmonary diseases.[25,26]

Posttraumatic stress disorder. Posttraumatic stress disorder develops in people who have been exposed to markedly distressing trauma that is outside the range of normal human experience. The trauma is then re-experienced in a variety of ways including distressing recollections, dreams, and flashbacks. Other symptoms of PTSD include persistent avoidance of stimuli associated with the trauma, numbing of general responsiveness (eg, feeling detached from other people), and symptoms of hyperarousal (eg, hypervigilance, exaggerated startle response).[1]

There are no data on the period prevalence of PTSD in the general elderly population. Most research into PTSD in late life has examined people who are survivors of the Holocaust or who were prisoners of war during World War II.[27-30] In these groups, symptoms of PTSD tend to be chronic and to persist into late life in up to 70% of cases.[27-30] A few investigators have also noted an association between the occurrence of stressful life events in old age (eg, reminders of the war experience, deteriorating health, or bereavement) and worsening or re-emergence of PTSD symptoms.[31,32] A PTSD can also develop for the first time in late life following natural and other disasters.[33,34] For most of these late-onset cases, the distress diminishes over time, but quite a few people continue to experience symptoms for at least 2 years after the disaster.[34] A consistent finding of PTSD research is that the intensity and chronicity of symptoms are positively correlated with the severity of trauma.

Obsessive compulsive disorder. The essential feature of OCD is recurrent obsessions, compulsions, or both.[1] Obsessions are ideas, thoughts, or impulses that are experienced as senseless and intrusive and persist despite attempts to suppress them. Compulsions are repetitive, purposeful behaviours performed in response to obsessions or in a stereotypical fashion, with the goal of reducing distress or preventing some dreaded event or situation. The activity is either not connected in a realistic way with what it is designed to prevent or is clearly excessive (eg, ritualized hand-washing, repeated checking).

Period prevalence of OCD in the elderly varies from 0% to 1.5%, with a median rate of 0.6%.[3,14,16,17] Approximately 5% of patients attending specialty OCD clinics are aged 60 or older.[35,36] In most of these cases, the OCD began much earlier in life. Preliminary research suggests that the symptoms of this illness do not change markedly as people grow older.[36]

Comorbidity

Depression. Anxiety often coexists with depression.[4] In the elderly, anxious depression is probably the most common presentation of anxiety in primary care.[37] Major depression is present in up to 70% of older people with generalized anxiety disorder[8,20] and in quite a few people with phobias or PTSD.[8,18,34] Similarly, 20% to 30% of elderly patients with major depression have generalized anxiety disorder, and up to 75% of older depressed patients have clinically significant subsyndromal symptoms of generalized anxiety.[9,38]

Dementia. Recent epidemiologic research has found that the prevalence of anxiety disorders alone (ie, without depression) is not increased in people with dementia.[39] Anxiety symptoms are often present, however, in people with dementia and, in these cases, anxiety is frequently associated with depression.[7]

Agitation is frequently seen in people with dementia. Agitation is purposeless motor hyperactivity or restlessness. It is not synonymous with anxiety, but in some people with dementia it might be a behavioural expression of subjective anxiety that cannot be communicated through words.

Medical illness. There is a complex interplay between anxiety, medical illness, and the medications used to treat these conditions. First, realistic worry and pathologic anxiety could be consequences of physical illness. Second, anxiety might itself contribute to medical morbidity or mortality (eg, people with high levels of anxiety are at increased risk of hypertension,[10] arrhythmias following myocardial infarction,[11] and death from cardiovascular disease[12]).

Third, anxiety might be misdiagnosed as a medical condition or vice versa. Generalized anxiety disorder, panic disorder, and PTSD have autonomic and other physical symptoms that might be mistakenly attributed to medical illness, with the result that affected patients receive unnecessary investigations and medications and do not receive appropriate treatment for anxiety. Patients with anxious depression might also focus on somatic complaints, such as fatigue, pain, or constipation and, as a consequence, the mood disorder might be missed. On the other hand, some medical conditions, such as hyperthyroidism, hypercalcemia, pheochromocytoma, or paroxysmal atrial tachycardia, might mimic an anxiety disorder but are usually correctly diagnosed following careful evaluation.

Fourth, anxiety-like symptoms might be caused by toxicity from stimulants (eg, theophylline, β-agonists, sympathomimetics, thyroxine, amphetamines, caffeine) and withdrawal from depressants (eg, benzodiazepines, alcohol). Finally, increased disability could result from excessive benzodiazepine use by people with physical illness and anxiety (eg, benzodiazepines might reduce respiratory drive in patients with chronic obstructive pulmonary disease,[40] leading to a vicious circle of worsening dyspnea and anxiety and increased prescription of medications for these conditions).

Management

For most people, acute situational anxiety improves with support, reassurance, and the passage of time. Formal psychotherapy and pharmacologic treatment are reserved for people with pathologic anxiety, defined as anxiety persisting for more than several weeks or when the anxiety, regardless of its duration, is causing serious distress or impairment in function.

Cognitive and behavioural treatments. Cognitive and behavioural strategies have well established efficacy for treating anxiety disorders in younger adults. Cognitive therapy is consistently more effective than no therapy or placebo for panic disorder with or without agoraphobia, generalized anxiety disorder, PTSD, and social phobia.[13] Exposure therapy is particularly useful for treating phobic avoidance and compulsive rituals.[13]

There has been little evaluation of cognitive and behavioural therapies for elderly patients. Case reports have described use of exposure therapy to successfully treat older people suffering from OCD or phobic avoidance.[41,42] Preliminary uncontrolled data suggest that cognitive-behavioural therapy could benefit older patients with panic disorder[43] but, to date, is ineffective for elderly subjects with chronic primary generalized anxiety disorder.[44]

Exposure therapy encourages patients to face feared situations or objects. Exposure usually occurs in a graded fashion over several weeks. Best results are obtained when exposure is prolonged rather than brief, takes place in real life rather than in fantasy, and is regularly practised by patients through self-exposure homework. Exposure therapy requires minimal training and can be carried out in primary care settings. Elderly people with agoraphobia are often supported at home by family members or domiciliary services. It is important that behavioural therapy is accompanied by withdrawal of any unnecessary support, because the ongoing presence of supports will reinforce the phobic behaviour and will likely undermine the behavioural intervention.[45]

The premise of the cognitive model of anxiety is that it is not events per se but peoples' expectations and interpretations of events that are responsible for the anxiety. According to this theory, anxious people overestimate the danger inherent in a situation, thereby causing an activation of autonomic and behavioural manifestations of anxiety. They then misinterpret these sensations as a further source of threat, leading to a vicious circle that maintains or exacerbates their anxiety disorder.[46] Cognitive therapy involves identifying, evaluating, controlling, and modifying these negative thoughts and cognitive distortions and attributions. Cognitive therapy is quite brief (five to 20 sessions) and highly structured and is usually carried out by a psychiatrist or psychologist trained in the procedure.

Cognitive and behavioural treatments obviously need to be tailored to people's physical and cognitive capacity. They might not be useful for elderly people with severe physical limitations or moderate-to-severe intellectual impairment.

Pharmacologic treatment.

Antidepressants: Controlled trials involving patients of various ages have found that several anxiety disorders respond to antidepressant medications (**Table 1**[13,47,48]). Case reports and case series suggest that older people with these disorders can also benefit from antidepressants.[26,41,49,50] The elderly, however, might be particularly vulnerable to the anticholinergic, hypotensive, and cardiac effects of imipramine and clomipramine, which are, respectively, the tricyclic antidepressants of choice for treatment of panic disorder and OCD. Therefore, selective

Table 1. Medications found effective in controlled studies of treating anxiety disorders in patients of various ages

DISORDER	TRICYCLIC ANTIDEPRESSANT	SELECTIVE SEROTONIN REUPTAKE INHIBITOR	TRIAZOLOPYRIDINE	MONOAMINE OXIDASE INHIBITOR	BENZODIAZEPINE	AZAPIRONE
Panic disorder with or without agoraphobia	Clomipramine Desipramine Imipramine	Citalopram Fluoxetine Fluvoxamine Paroxetine Sertraline	None	Brofaromine Phenelzine	Alprazolam Clonazepam Diazepam Lorazepam	None
Generalized anxiety disorder	Imipramine	Paroxetine	Trazodone	None	Various benzodiazepines	Buspirone Ipsapirone
Obsessive compulsive disorder	Clomipramine	Fluoxetine Fluvoxamine Sertraline	None	None	None	None
Posttraumatic stress disorder	Amitriptyline Imipramine	Fluoxetine	None	Phenelzine	None	None
Social phobia	None	Fluvoxamine Paroxetine Sertraline	None	Brofaromine Phenelzine Moclobemide	Alprazolam Clonazepam	None

Data from Antony and Swinson,[47] and the American Psychiatric Association,[47] and Rocca et al.[48]

serotonin reuptake inhibitors (SSRIs), which do not cause these adverse effects, are preferable first-line treatment for these disorders in the elderly. If started at too high a dose, SSRIs could initially exacerbate symptoms of anxiety and, therefore, anxious patients should be started at a lower dose (eg, 5 mg/d of paroxetine or 25 mg/d of sertraline).

Benzodiazepines: Benzodiazepines are an effective treatment for acute situational anxiety, generalized anxiety disorder, panic disorder, and social phobia (**Table 1**).[13] As previously noted, most elderly people with symptoms of generalized anxiety also have depressive illness and, in these cases, the primary pharmacologic treatment should be antidepressant medication. Some patients with anxious depression, however, might also need short-term benzodiazepine treatment until the antidepressant becomes effective.

All benzodiazepines have the capacity to cause cognitive impairment, psychomotor impairment, instability of gait, falls, and hip fractures.[51,52] For older people, benzodiazepines that are metabolized by conjugation (eg, lorazepam, oxazepam) are preferred because their clearance is unaffected by aging and, therefore, their active ingredients are less likely to accumulate and cause toxicity.[51]

Most elderly people who are prescribed benzodiazepines do not require them on an ongoing basis. Sometimes, however, long-term benzodiazepine treatment is necessary. In particular, some patients with long-standing primary generalized anxiety disorder, who have been maintained on benzodiazepines for years, experience significant worsening of anxiety when attempts are made to withdraw the medication, even when the dose is tapered very gradually. In such cases, if the benzodiazepine is not causing serious side effects, it is usually least disruptive to patients to continue the medication and monitor them regularly. If side effects do become an issue as people grow older, dose reduction rather than complete discontinuation might be the best compromise. Long-term use of benzodiazepines for treatment of insomnia is not warranted for most patients, and many patients can be successfully withdrawn from benzodiazepine hypnotics.[53]

Buspirone: Research data suggest that buspirone is an effective treatment for generalized anxiety disorder.[52] Unlike benzodiazepines, buspirone is nonsedating, does not cause serious cognitive or psychomotor impairment, does not suppress respiratory drive, is unlikely to cause dependence, and does not cause withdrawal symptoms following discontinuation.[52] Therefore, from the point of view of tolerability and safety, buspirone has advantages over benzodiazepines in later life. Some research data suggest, however, that buspirone has less efficacy for patients previously treated with benzodiazepines.[52,54] Therefore, its usefulness for managing elderly patients with chronic generalized anxiety disorder, many of whom have been treated with benzodiazepines, is unclear. Also, because buspirone has a delayed onset of action of several weeks, it is not suitable for acute situational anxiety or for acute treatment of anxiety symptoms associated with depression. Buspirone might have a role in treatment of generalized anxiety in nondepressed patients with chronic medical illness (eg, patients with chronic obstructive pulmonary disease).[52]

Key points

- The most common anxiety syndromes in the elderly are phobic disorders and generalized anxiety disorder.
- New-onset anxiety in elderly people is often associated with depression.
- Antidepressant medication is the pharmacologic treatment of choice for generalized anxiety associated with depression.
- Agoraphobia without a history of panic is best treated with behavioural therapy.

Points de repère

- Les syndromes les plus fréquents d'anxiété chez les personnes âgées se situent dans les phobies et les troubles d'anxiété généralisée.
- L'anxiété dont l'apparition est récente chez les personnes âgées est souvent associée à la dépression.
- Les antidépresseurs représentent la pharmacothérapie indiquée dans les cas d'anxiété généralisée associée à la dépression.
- L'agoraphobie sans antécédents de syndrome de la panique se traite le mieux au moyen d'une thérapie du comportement.

Conclusion

Generalized anxiety disorder and agoraphobia account for most cases of late-onset anxiety. Late-onset generalized anxiety disorder is usually associated with depressive illness and, in this situation, the primary pharmacologic treatment is antidepressant medication, not benzodiazepines. Most people with late-onset agoraphobia do not give a history of panic attacks. Cognitive-behavioural therapy is the treatment of choice for agoraphobia without panic.

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