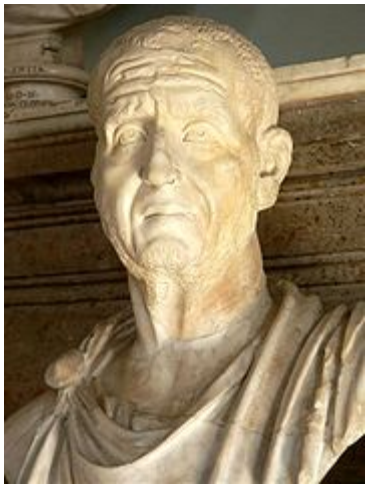
BRAIN SCIENCES: BRAIN AND BEHAVIOR

Aging-related content to accompany lectures on 'Anxiety'

Learning Objectives:

1. Understand the effects of age on anxiety in older adults.
2. Understand the etiology, symptoms, diagnosis and treatment of anxiety in elderly patients.
3. Understand the consequences of anxiety in older adults.



I. Overview

In elderly patients, anxiety commonly occurs with comorbid physical and mental disorders. Less often, a primary anxiety disorder may occur. Prevalence, symptoms and outcomes often differ in elderly patients.

II. Etiology

In older persons, physical and mental disorders and drugs (e.g., antidepressants, beta-agonists, caffeine, digoxin, theophylline) are the most frequent causes of anxiety or similar symptoms that are easily mistaken for an anxiety disorder. Elderly patient with knee arthritis, for example, are more likely to have anxiety (Scopaz 2009). Dementia can also cause anxiety in elderly patients.

III. Signs and Symptoms

Anxiety may be preceded by early symptoms of cognitive impairment, such as memory loss. Sleep disturbances, both insomnia and prolonged sleep, are common (van den Berg 2009). Anxiety may also include periodic panic attacks, which, in turn, contribute to social withdrawal and isolation. The anxiety may cause severe and traumatic behavioral changes, which can mask an underlying dementia. Major depression, although not more common in older persons, frequently produces symptoms of anxiety. Anxiety must be also distinguished from delirium, which can manifest as moderate to severe agitation and shifting attention, resembling anxiety.

IV. Diagnosis

Agitation, which commonly occurs in dementia, is important to differentiate from true

anxiety. Agitated elderly persons do not necessarily experience the sense of impending doom and dread that characterizes anxiety, although some agitated elderly persons may report early-morning anxiety bordering on panic, especially if they awaken in the dark and others in the house remain asleep. Such symptoms, however, tend to remit as the day progresses. Neuropsychologic testing is rarely beneficial for diagnosing primary anxiety disorders in elderly patients, but can help identify dementia (Feldman 2008) and mood disorders (Gildengers 2007).

V. Generalized Anxiety Disorder

Generalized anxiety disorder (GAD), characterized by excessive, almost daily, anxiety and worry for at least six months about many activities or events, is very common, affecting up to 7% of elderly persons, compared to only about 3% of elderly persons with depression (Warner 2006). Women are twice as likely as men to experience GAD.

A. Symptoms: Symptoms of GAD in elderly patients are similar to those in younger persons. The patient has multiple worries, which often shift over time. Common worries in older persons include money, health (their own and that of their family members) and safety.
B. Diagnosis: Diagnosis of GAD is based on criteria of DSM-IV-TR. Most people with GAD have one or more comorbid physical and mental disorders, including major depression, specific phobia, social phobia, and panic disorder.
C. Treatment: Stop drugs that may contribute to the anxiety, if possible; treat all coexisting physical and mental disorders, such as depression, substance abuse, social anxiety disorder, and panic disorder that may contribute to anxiety (Davidson 2009).

   1. *Support*: For mild symptoms, begin with one-on-one counseling and family support provided by a physician, mental health nurse, mental health social worker, or psychologist.
   2. *Psychotherapy*: Psychotherapy, usually cognitive-behavioral therapy, is effective and can be both supportive and problem-focused in older persons. Progressive relaxation and biofeedback may also help.
   3. *Pharmacotherapy*: Antidepressants and benzodiazepines, prescribed based on efficacy and possible drug-drug interactions, are first-line agents for generalized anxiety in elderly patients. Elderly patients generally respond well to anxiolytic drugs, although tension, agitation, and other symptoms may persist. Antidepressants, especially SSRIs and serotonin-norepinephrine reuptake inhibitors (SNRIs; e.g., venlafaxine), are effective, but typically require at least a few weeks to take effect. Recent studies demonstrating potential relationship between use of SSRIs or SNRIs and suicidal behavior in adolescents (Hammad 2004; Levenson 2006; Stone 2006) have not been confirmed in elderly patients. All benzodiazepines work well in treating anxiety, but elderly people experience fewer adverse effects from short- or intermediate-acting benzodiazepines (e.g., lorazepam, oxazepam) than from long-acting benzodiazepines (e.g., diazepam, clonazepam) due to prolonged clearance from slowed hepatic detoxification with age (von Moltke 2000). The dose of benzodiazepines for elderly patients is usually lower than that for younger patients. Generally benzodiazepines are prescribed on a fixed schedule, rather than as needed, although patients with occasional anxiety

may use the drugs intermittently. Long-acting benzodiazepines can greatly increase the risk of falls and hip fractures in elderly patients. Patients should be monitored closely for adverse effects. Rarely, an elderly patient may experience a paradoxical reaction to benzodiazepines, becoming more agitated and anxious.

VI. Panic Attack and Disorder

Panic attacks in the elderly are rare, and are usually less severe compared to younger adults. Some elderly patients, however, may have new-onset attacks manifesting as chest pain. Panic disorder and attacks are often comorbid with alcohol abuse (Cosci 2007).

Elderly patients with panic disorder typically benefit from education about anxiety, and encouragement to continue to return to and remain in places where panic occurs. Two forms of psychotherapy have proven effective: exposure therapy, in which patients confront fears; and cognitive-behavioral therapy, in which patients are taught to recognize and control their reaction to whatever triggers the panic and to modify their behavior so that it is more adaptive than simply avoiding the trigger. Panic attacks with agoraphobia (avoidance of certain places or situations) usually require drug therapy in addition to psychotherapy. Antidepressants such as SSRIs and serotonin-norepinephrine reuptake inhibitors offer a potential advantage of fewer adverse effects compared with tricyclic antidepressants. Intermediate-acting benzodiazepines (e.g., alprazolam) can be used if other therapies fail.

VII. Acute Stress Disorders (ASD)

Elderly persons who have witnessed a death may experience an acute stress disorder for a short period (less than four month by definition of ASD), especially when revisiting the setting of the death. Most recover once they are removed from the traumatic situation, shown understanding and empathy, and given an opportunity to describe what happened and how they responded (Lambert 2004). Sleep-promoting drugs may help, but other drugs are usually unnecessary.

VIII. Post-Traumatic Stress Disorders (PTSD)

Overall, elderly people are at lower risk of developing PTSD than younger adults. Risk may be increased for elderly people who live in unsafe neighborhoods where they are

likely to be assaulted. In PTSD, an overwhelmingly traumatic event is re-experienced, causing intense fear, helplessness, horror, and avoidance of stimuli associated with the trauma. Diagnosis is based on criteria in the DSM-IV-TR. Left untreated, chronic PTSD often diminishes in severity without disappearing, but some people remain severely handicapped. The primary form of psychotherapy used, exposure therapy, involves exposure to situations that the person avoids because they may trigger recollections of the trauma (Ursano 2004; Committee on Treatment of Posttraumatic Stress Disorder 2008). SSRIs, such as paroxetine, may be effective in patients who do not respond adequately to psychotherapy (Maxmen 2002).

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