Depression and Suicide in the Elderly

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Introduction

Depression is common in the elderly and is a major public health problem. Depression in late life is associated with significant morbidity, including deficits in a range of cognitive functions and considerable influence on functional impairment and disability. In elders who have co-existing chronic medical conditions, the presence of depressive symptoms increases role impairment, utilisation of medical services and treatment costs,[1,2] decreases patients' compliance with their medical treatments[3] and alters disease course, leading to higher mortality and disability.[4,5]

Depression in the elderly can be divided into early-life onset, which recurs in old age, and late-life onset, which begins in old age. Late-life onset depression is the primary focus of this article.

Epidemiology

Beekman et al (1999) reported the prevalence of clinically significant depression among older people living in the community was 13.5% in a meta-analysis.[6] The prevalence of depressive episode was much lower, at around 2%. Copeland et al (2004) found that the prevalence of depressive symptoms ranged from 26%-40% among community dwelling older people in Europe in another review.[7]

In Hong Kong, the prevalence of clinically significant depressive symptoms was 9.7% among the community cohort of 55946 elderly. Depression was screened by the 15-items Chinese version of Geriatric Depression Scale (GDS) with a cut-off point at 8.[8] Another cohort study involving more than 3900 elders also reported a prevalence of depressive symptoms of 9.3% using GDS as screening.[9] The prevalence rates of severe depression in the Chinese elderly population were lower than those reported in Western studies but the prevalence rates of depressive symptoms approached those of most Western countries.[10]

Depressive disorders are common among elderly people in nursing homes. Recent studies have demonstrated a higher prevalence of depressive disorders in residential homes than in the community. Conservative estimate of the prevalence of depression in cognitively intact nursing home residents is 10-20%; for cognitive impaired patients the prevalence rises to 50-60%.[11] The prevalence of major depression was found to be 8.1% and the prevalence of minor depression was 14.1%, while a further 24% of the patients suffered from sub-clinical depression among nursing home residents in a recent study.[12]

Clinical Presentations

Two findings regarding the symptomatology of depressive disorders in late life stand out. One is the observation, across many cultures, that elderly people with depressive disorders complain less of a subjective lowering of mood than do younger patients, even when they appear depressed to the observer.[13] The other is that hypochondriacal preoccupation- an over-concern with and fear of bodily illness- is found consistently more often in older than in younger patients.[14]

It is often more difficult to diagnose depression in the elderly because of the overlap between the vegetative symptoms of depression and the symptoms of co-morbid physical illness. Elders underreport depressed mood and they are less likely to express suicidal ideation than younger age group. In addition, many depressed elders present with somatic complaints and minimise their psychological distress ('masked depression'). Masked depression is even more common in cultures where somatic illness is more readily accepted than mental disorders by the elderly.

Suicide attempts by older people should be taken seriously. Overdoses are rarely taken simply to attract attention. Any act of possibly deliberate self-harm should lead the physician to explore whether a depressive disorder is present. Even if the act of self-harm is not medically serious, it should not be ignored.

Characteristics of Late Onset Depression

Although some studies have not supported this view, most have shown that late-onset depression relative to early-onset depression is associated with higher medical morbidity and mortality,[15] greater disability,[16] and more neuropsychological[15,16] and neuroradiological abnormalities.[17-19]

Dysexecutive syndrome is considered to be a key to the neuropsychology of late onset depression, correlated with functional impairment in late life. Late-onset depression has a higher load of comorbidity, of cerebrovascular disease, and of some genetic factors that may be different from early onset depression. Late-life depression is often associated with executive

dysfunction,[22,23] a neuropsychological expression of frontal system impairment, with a clinical presentation of depression resembling medial frontal lobe syndromes. Compared to elderly patients with early-onset depression and no vascular risk factors, patients with late-onset major depression and vascular risk factors have shown greater impairment in frontal functions, poorer insight, more psycho-motor retardation, less agitation and guilt, and more disabilities.[24,25]

The "vascular depression" hypothesis has served as the conceptual background for further subclassification of geriatric depression. One group of investigators further described a "vascular depression" subtype, subcortical ischaemic depression (SID), and defined it as a major depression with MRI evidence of subcortical lesions. Unlike most psychiatric disorders, which are described in purely phenomenological terms, subcortical ischaemic depression involves a measurable biological abnormality. The association of late-life depression with executive dysfunction led another group of investigators to describe the depression-executive dysfunction syndrome (DED). Although many patients with DED also meet criteria for SID or other "vascular depression syndromes", DED's focus on a functional abnormality rather than an anatomical one extends it beyond the vascular depression concept.[26]

Prognosis

Most older patients recover if given appropriate treatment. A meta-analysis by Cole and Bellavance indicated that 60% of patients either remained well or had relapses or recurrences from which they also recovered.[27]

Cole and Bellavance also looked, in another meta-analysis, at outcomes in community dwelling older adults with depressive disorders.[28] They found that after 2 years, 3.6% to 34.4% were completely well, 27% were continuously ill, and most of the remainder had died. No treatment or inadequate treatment of depressive disorders could result in poor recovery and chronic depressive illness.

Different types of depressive disorders may lead to different outcomes. Early evidence suggests that depressive disorders in old age - particularly late-onset depression-are associated with brain changes, which may result in lower rates of remission of symptoms in the acute phase of treatment. Psychotic late-life depression is also associated with poor outcome.[29]

Depression and Pseudodementia

Alexopoulos et al. studied 57 depressed inpatients subdivided by the presence or absence of "reversible dementia"-cognitive impairment that remits after recovery from a depressive disorder. Patients presenting initially with a depressive disorder and reversible cognitive impairment had an almost fivefold increased risk of developing dementia, compared with those who had a depressive disorder but intact cognitive function.[30]

Recent follow-up data demonstrate that patients with pseudodementia develop dementia at a rate of 9% to 25% per year.[31] In an epidemiological community study of dementia, Devanand and colleagues demonstrated that depressed mood was common in subjects with cognitive impairment who did not meet the criteria for dementia.[32] The evidence suggests that patients who present with cognitive impairment and depressive disorder are at increased risk of dementia, even though their confusion may lift with treatment of the depressive disorder.

Treatment

In general, antidepressants are as effective in the elderly as in younger patients,[33,34] with response rates of 50% to 60% in various clinical trials. These trials, as well as a more recent meta-analysis of published studies,[35] also suggest that in older subjects, there is little difference in efficacy among antidepressant classes.

Most clinicians choose first-line agents with more benign side effect profiles. Selective serotonin reuptake inhibitors are the recommended first-line antidepressant.[36] In general, it is acceptable to initiate doses at half the usual adult dosage and then titrate slowly for a few weeks to the optimal dose, if tolerated. An adequate medication trial requires 6 or more weeks of a recommended dosage. After remission of depressive symptoms, continuation of treatment during the next 6 months helps to prevent relapses in adults but the main risk period in older adults may be as much as 2 years. Beyond continuation treatment, guidelines for maintenance therapy to prevent recurrence have not been established for the elderly. Some advocate long-term treatment for patients who have recurrent depressive episodes.

Electroconvulsive therapy is safe and effective and has an 80% to 90% remission rate in elderly patients.[37] The most important adverse effect is memory impairment, which is often transient. However, ECT can be lifesaving for the most severely ill.

Psychotherapeutic interventions can be beneficial alone or in conjunction with pharmacological interventions in the treatment of geriatric depression.[38] Cognitive behavioural therapy and interpersonal psychotherapy, have been shown in randomised clinical trials to be efficacious as medications for cognitively intact elderly patients with mild to moderate depression.[39] A combination of formal psychotherapeutic interventions and pharmacological agents is more efficacious for moderate to severe depression than either form of treatment alone.

Short term treatments include cognitive behavioural therapy, interpersonal psychotherapy, and problem-solving therapy (PST) which are delivered over a period of two or four months, and have been shown to be effective for the older population. Research from Project IMPACT demonstrated the feasibility and cost-effectiveness of a primary care-based treatment programme that offered a choice of antidepressant medication and/or a brief, structured form of PST.[40]

Antidepressants medications bring to remission fewer

than 40% of depressed elders who have some degree of cognitive impairment. Cognitive deficits, in particular executive dysfunction have been associated with slow and/ or poor response to antidepressant treatment.[41,42] Studies comparing PST with treatment as usual in primary care and home care continue to support the usefulness of PST for depression in older adults.[43,44] PST has been adapted for depressed elderly with mild executive dysfunction, and recent data suggest that it is efficacious in reducing depression and disability in this population.

Activity scheduling is a behavioural treatment for depression which encourages the patients to increase the number of pleasant activities and positive interactions with their environment.[45] Inproving social support might also help to reduce loneliness and depression, and improve adaptation to disability in the elderly. Besides, both mindful and non-mindful physical exercises were reported to have short term effects in reducing depressive symptoms among older persons.[46]

Suicides in the Elderly

In many countries the suicide rate of elderly persons (referring to those aged 65 years and above) is higher than in younger age groups.[47] In some Asian countries like Japan, Korea and China, the suicide rate in older people were very high compared with rates in younger people.[48] Elderly suicide rates (27.6 per 100,000) are 2 to 3 times that of the general population above average (13.6 per 100,000) in 2006 in Hong Kong. In most Western countries, the male to female ratio of suicide rate is approximately 3: 1, but in many Asian countries, there is a low male to female ratio. Recent studies showed that the suicide rate in women was higher than that in men in China. In the elderly, the male to female ratio was slightly over 1. In Hong Kong, the male to female ratio in elderly suicides was 1.3: 1.[48]

In older people, suicidal ideations, suicide attempts, and completed suicides occur most frequently in the context of major depression. Psychological autopsy studies have found depression to be the most common psychiatric diagnosis in elderly suicide victims and in suicide attempters. Conwell's group reported that 76% of elderly suicide victims had diagnosable psychopathology, including 54% with major depression and 11% with minor depression.[47] Chiu et al. reported that 86% of the elderly suicide subjects in Hong Kong suffered from a psychiatric problem before committing suicide. Among the psychiatric problems, major depression which was the most common diagnosis was found in 53% of the elderly suicide subjects.[49]

Depression is the principal risk factor for suicide in late life and for suicide's clinical precursor, suicidal ideation. Physical illness, interpersonal problems and bereavement are commonly associated with suicides in older people.[50] Life problems do not occur in isolation; a suicide is the end-point of a complex interaction of psychiatric, psychological, and demographic variables. Depression is a common mediating factor between life problems and suicides in older people and personality factors might determine how an individual reacts to life problems.[51]

The detection of suicide in the elderly (especially in men) is more challenging, as they are less likely to communicate their depressed mood and overt suicide intent and often present with symptoms of masked depression. Chiu et al. reported that 76.5% of suicide subjects in Hong Kong had consulted a doctor (including specialists or general practitioners) within 1 month before death in a psychological autopsy study.[49] This finding showed that elderly suicide subjects had a high rate of recent medical consultation and that primary care physicians can act as "gate-keepers" to detect and prevent suicide behaviour in older persons.

The Elderly Suicide Prevention Programme (ESPP) was implemented in Hong Kong in 2002. In this programme, 7 elderly suicide prevention teams, consisting of psychiatrists, nurses and social workers, worked in collaboration with hotline services, nongovernmental organisations, centres for the elderly, and general practitioners to screen for people with depression and those at risk of suicide. Older people identified as being at risk for suicide or with severe depression were seen in fast-track clinics and visited at home by nurses. The ESPP was associated with a reduced rate of completed suicides in elderly suicide attempters and might have contributed to a fall of suicide rate in women aged 85 years and older.[52]

Conclusion

Depression is a common but frequently unrecognised or inadequately treated condition in the elderly. Improved detection and early interventions are crucial in preventing disabilities and suicides. Geriatric depression is a multidimensional disorder with multiple risk factors. Treatment for the elderly patients with depression should involve biopsychosocial dimensions targeting mood, cognition and functional ability at the same time.

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