INVITED ARTICLE

DEPRESSION OF OLD AGE

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ABSTRACT

Depression is a common and serious psychiatric problem in the elderly causing suffering to the patients and their carers. Its aetiology include biological causes, psychosocial events, physical illnesses and medication. Clinically, the symptoms are similar to those found in younger patients, but certain symptoms eg somatisation and agitation are more common. Depression in the elderly are often misdiagnosed as physical illnesses and dementia and vice versa as they occur commonly in the elderly and share some similar symptoms. In treatment, the elderly patient's altered pharmacokinetics must be taken into consideration. Some side-effects of antidepressants are not only troublesome but also potentially dangerous in the elderly.

Electroconvulsive therapy can be life-saving in those who are severely retarded and refuse food. Depression in old age tends to run a chronic course. Relapse rates are high in those who recover.

Keywords: *Depression, elderly, physical illness, antidepressants, side-effects.*

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INTRODUCTION

Depression is a common and serious psychiatric problem in old age. If untreated, it leads to considerable morbidity and mortality[1]. It brings suffering to the patients and their carers, economic loss, withdrawal from social activities and neglect of self. It can lead to suicide in the elderly patient. Despite the seriousness of the condition, it is often undetected, misdiagnosed or dismissed as part of normal ageing[2]. As depressive illness is treatable and its complications preventable, it is important for doctors to be able to recognise the condition and institute appropriate treatment as soon as possible.

EPIDEMIOLOGY

The point prevalence for depression of clinical severity is about 10% for those aged above 65, with 2% to 3% being severe[3]. A survey of 612 elderly Chinese living in the community in Singapore found 35 cases of depressive disorder[4]. This works out to 5.6% of the community having the disorder.

The prevalence rate for depressive symptoms in nursing homes ranges from 30%-75% while that for depressive disorder is well over 20%[5].

AETIOLOGY

Biological causes

With regard to genetic factor, it is less frequent that elderly depressed patients have positive family histories of affective disorders as compared to younger patients[6].

The increased incidence and prevalence of depression in the elderly may be partially related to changes that occur in the central nervous system with ageing. The elderly have decreased concentrations of monoamine neurotransmitters in the brain, such as serotonin, dopamine, norepinephrine, and their metabolites. As reduced catecholamines cause depression, it can be argued that the ageing process predispose to depression[7].

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Psychosocial causes

Old age is frequently said to be a time of deprivation. The elderly frequently have problems of poor health, poor eyesight and poor mobility. Loss of income, status and useful roles both at home and in society may follow retirement. With deaths of spouse and friends, and children leaving home, the elderly may be lonely and isolated. The common view is that depression in old age is caused by deprivation, isolation and losses. However, there is no convincing evidence for such an association[3]. It is the premorbid personality and the ability to form relationships that determine how the elderly person react in the face of such life events.

Physical illnesses and medication

Depression and physical illnesses often coexist in the elderly as they both occur commonly in old age. There is a close relationship between depression and physical illness. Depression may be caused by specific physical disorders possibly as a direct consequence of the cerebral organic effects of these conditions. A whole range of medication used to treat physical illnesses can cause depression. The elderly may become depressed as a reaction to the disabilities and discomfort, and having to tolerate the unpleasant side-effects of treatment.

Depression can lead to physical illnesses. The fatigue, sleep disturbance and loss of appetite in depression can be physically disabling. In addition, the depressed person's tendency for self-harm, self-neglect, inactivity and reduction in motivation to take medical treatment can result in physical health problems.

Physical illnesses that cause depression include infections (GPI, influenza, viral pneumonia), endocrine illnesses (hypo and hyperthyroidism), collagen diseases (SLE), neurological conditions (Parkinson's Disease, stroke[8], early dementia, cerebral tumour and head injury), neoplasms (pancreatic cancer and disseminated carcinomatosis) and nutritional deficiencies (Pellagra and Vitamin B_{12} deficiency).

Drugs that can cause depressive symptoms include steroids, antihypertensives (eg reserpine), diuretics, beta-blockers, hypnotics or anxiolytics, alcohol, oestrogen

preparations, anti-parkinson drugs and immunosuppressive and cytotoxic agents.

PRESENTATION

Clinically, depression in old age is generally the same as in younger people. Many of the symptoms of depression in the elderly are similar to those in younger patients – depressed mood, apathy, anhedonia, insomnia, loss of appetite and weight, feelings of guilt, psychomotor agitation or retardation, poor concentration and memory and suicidal intent[9]. However it has been noted that certain depressive symptoms eg somatisation and agitation are more common in the elderly. Psychotic symptoms like delusions of guilt, poverty, debt, severe illness, nihilism, punishment and impending death are often accompanied by somatic complaints of inability to swallow, blocked bowels and a feeling that the insides are rotting or diseased. Mood congruent hallucinations comprising of voices telling them that they are worthless and deserve to die may be present.

Patients with severe retardation may refuse to eat or drink and appear stuporous, immobile and silent. Mortality rate of depressive stupor in the elderly is high because malnutrition, dehydration and other complications like infections follow rapidly if the self-neglect is allowed to continue. Rehydration and electroconvulsive therapy may not only be life-saving but curative.

Milder forms of major depressive disorders may present with querulous irritability, anxious clinging and apprehensive pessimism about the future, an overcomplaining attitude and a preoccupation with poor health out of keeping with the severity of the physical illness. They may also present with anxiety symptoms and fear of being alone, needing constant reassurance and continuous company. As all these symptoms may be appropriate to the person's real problems, careful interview and assessment of the overall situation are essential.

As patients who develop unipolar depression and bipolar manic depression grow old in age, they carry their psychiatric burden into old age. Episodes of illnesses sometimes become more frequent and prolonged with age.

Some of the symptoms in depression and physical illness are similar eg lethargy, loss of appetite and weight, and somatic complaints. As both physical illness and depression are common in the elderly, it is not surprising that these two conditions are easily mistaken one for another.

Dementia is another condition that is often misdiagnosed as depression and vice versa as they share many symptoms eg retardation, poor concentration, poor memory, and withdrawal[10]. Depressed old people frequently complain of poor memory and fears of intellectual decline, but on psychometric testing, performance on tests of immediate recall do not differ significantly from normal elderly people. The patient's perception is likely to be the consequence of concentration difficulties. Depression and dementia can occur together. As many as 20% of Alzheimer's Disease sufferers in the early stage are depressed. If there is problem of diagnosis or if there is a suspicion that the cognitive impairment is the result of depression rather than dementia a therapeutic trial of antidepressants may be used.

MANAGEMENT

Careful psychiatric, medical and drug histories, physical examination and laboratory workup are necessary to accurately diagnose depressive illness, exclude physical causes of depressive illness, assess suicide risk, detect the complications of depression and identify conditions that increase the risk for treatment.

Inpatient management is indicated in patients who are suicidal, agitated and disturbed, or who refuse food, drink or medication. Treatment of depression in the elderly can be divided into three main modalities:

Physical treatment

1. Medication

To date, studies comparing antidepressant efficacy have failed to identify any single antidepressant or antidepressant group that is therapeutically superior. The selection of a specific antidepressant depends on the side-effect profile, the requirement of the particular patient and the clinician's experience and preference.

In old age, metabolism and elimination of drugs are slowed down leading to increased susceptibility to side-effects. The starting dose should be low and increased very gradually with a close monitor of side-effects. In the early stages of treatment, the patient should be reviewed at short intervals of about one or two weeks to monitor progress or deterioration of illness and any side-effects.

It is important to educate the patient and the family members on the nature of depression and the treatment. They should be informed of the lag period of about ten to fourteen days before the antidepressant effect is obvious. Compliance must be stressed and the family should be encouraged to supervise treatment and support the patient through the treatment.

The classes of antidepressants that may be used in the elderly are:

Tricyclic antidepressants (TCAs)
Monoamine oxidase inhibitors (MAOIs)
Selective serotonin reuptake inhibitors (SSRIs)
Others: Amineptine (Survector)
Triazolopyridines (eg Trazadone)
Lithium

Tricyclic antidepressants are effective. However the side-effects can be both troublesome and dangerous in the elderly. They include orthostatic hypotension, sedation, cardiac arrhythmias and anticholinergic reactions.

Orthostatic hypotension can cause falls, fractures, strokes and heart attacks. Night-time sedation commonly lead to unwanted drowsiness the next day due to prolonged elimination half-life of antidepressants in older persons. TCAs have dangerous quinidine-like properties and should not be given to patients with preexisting conduction defects like left bundle branch block, second degree atrioventricular block or atrial or ventricular arrhythmias[11]. Peripheral anticholinergic side-effects include dry mouth, blurred vision, constipation, urinary retention especially if there is a history of prostatism and exacerbation or precipitation of narrow angle glaucoma which are more common in the elderly because of cataract formation. When using TCAs it is probably best to choose one of the secondary amines eg desipramine or nortryptyline which have less side-effects.

Monoamine oxidase inhibitors have been shown to be effective antidepressants[12]. Recent studies suggest that MAOIs may be as effective as tricyclic antidepressants in treating elderly patients. Some clinicians feel that atypical depression, which is associated with increased appetite, weight gain, hypersomnia and neurotic symptoms, respond best to MAOIs. Common side-effects are dry mouth, dizziness, postural hypotension, constipation and hypomanic episodes. Patients who consume certain tyramine containing foods (some cheeses, beers, red wine, preserved or aged fish or

meats) in conjunction with MAOIs may experience severe hypertensive crises. Drugs that interact adversely with MAOIs should be avoided. It is also necessary for a washout period of at least two weeks when switching from an MAOI to another antidepressant class. Such problems may be avoided by using selective and/or reversible MAOIs eg Moclobemide.

Selective serotonin reuptake inhibitors like Fluoxetine, Paroxetine and Setraline are better tolerated and possess a substantially wider therapeutic index than TCAs and MAOIs. They are relatively specific in their blockade of the reuptake of serotonin without greatly affecting other reuptake mechanisms, receptors or enzymes. They have no anticholinergic activity and their side-effects (nausea, vomiting, diarrhoea and insomnia) are primarily a result of the potentiation of effects of serotonin.

Fluoxetine has minimal effects on cardiac conduction and is a promising drug for patients with cardiac illness or older patients who are sensitive to the hypotensive or sedating effects of tricyclic antidepressants.

Lithium is useful in elderly patients for prophylaxis of unipolar or bipolar affective illness, for treatment of mania and as an adjunct to TCAs in treatment resistant depression. Altered pharmacokinetics in the elderly may mean that dosages may be considerably less than in younger patients to achieve similar serum levels.

2. Electroconvulsive Therapy (ECT)

ECT has been demonstrated to be a safe and effective treatment in elderly depressed patients. It is indicated in suicidal patients, those refractory to other therapies and those with coexisting medical conditions that preclude treatment with antidepressants. Carried out under carefully controlled conditions, ECT can be a less hazardous treatment than TCAs in a frail patient. It is more rapidly effective and may be life-saving in a depressed elderly who refuses food and drink.

It sometimes lead to confusion in geriatric patients and reversible memory dysfunction occur in almost all patients. Although some patients complain of persistent memory impairment, their subjective experience of memory loss is not substantiated by neuropsychological tests.

Psychological treatment

Apart from medication, supportive psychotherapy and grief therapy for the patients, and counselling for the carers may be useful in certain patients.

Social intervention

For patients who have financial problems or accommodation problems aggravating their depression, assistance from the social work department may help alleviate their problems. Referrals to day centres or clubs for the elderly can help to ease the problem of loneliness in some patients.

PROGNOSIS

Depression in old age carry both high chronicity, and in those who recover, a high relapse rate[13]. Mortality rate is high. One year mortality rate ranges between 8.2%[14] and 14%[15]. Lasting recovery can be expected in at least 50%.

Several factors have been shown to predict poor outcome. Notable among these are cognitive impairment, physical illness, and the severity and chronicity of the depressive illness itself[16].

CONCLUSION

Although depression in old age is a serious and common psychiatric problem causing significant morbidity and mortality if untreated, it is amenable to treatment by a range of pharmacological and non-pharmacological means. In treatment, the elderly patient's altered pharmacokinetics, concomitant physical problems and increased susceptibility to side-effects have to be taken into consideration.

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