By Dr Andrew Ford, Consultant Psychiatrist Royal Perth Hospital, Western Australian Centre for Health and Ageing UWA.

Older adults with depression

Data from the DEPS-GP project involving the West Australian Centre for Health and Ageing suggests that 8.2% of older Australians have clinically significant depressive symptoms, although the prevalence of major depression is lower at 1.8%. Given Australia's ageing population (adults >65 years predicted to make up about 24% of the population by 2056), depression has important consequences for the individual and community - reduced quality of life, withdrawal, functional and cognitive impairment, and increased institutionalisation. Depression can complicate many physical illnesses and suicide rates tend to increase in the elderly, especially men >80 years.

Presentation

In the elderly, depression presents much like in younger adults. The most widely used DSM-IV and ICD-10 diagnostic criteria entail having a depressed mood or loss of interest/pleasure for at least two weeks. In addition there must be associated symptoms such as decreased energy, sleep disturbance, loss of appetite/weight loss, psychomotor changes, diminished concentration, suicidal thoughts/acts, and negative cognitions such as feelings of worthlessness and guilt.

There are some notable differences in how depression presents in older adults viz:

- more somatic complaints
- hypochondriasis
- psychomotor disturbance (both increased – 'agitated depression' and decreased)
- a greater likelihood of psychotic symptoms
- more reported insomnia
- higher rate of melancholia
- minimal expression of sadness (may present as a 'masked depression')
- higher rate of cognitive impairment (pseudo dementia)

Treatment cautions for elderly

Management of depression adopts a biopsychosocial framework and in the elderly, extra attention is put to excluding any contributing medical illnesses. Collateral information from family/friends is essential as the patient may attempt to present as well as possible to the physician or have cognitive impairment. A detailed history includes alcohol use, social supports and current mental state, including a comprehensive risk assessment. Psychosocial treatments should always be explored with the patient.

Pharmacological treatment of older adults brings some important considerations, compared to younger patients:

- Altered pharmacokinetics: reduced renal clearance (especially patients on long term lithium); decreased liver metabolism; relative decrease in body water and increase in adipose tissue leading to longer half lives for lipophilic drugs (e.g. diazepam, antipsychotics); and a reduction in total albumin leading to alterations in free drug concentration.
- Different pharmacodynamics: the elderly are more sensitive to the syndrome of inappropriate antidiuretic hormone (SIADH) especially secondary to SSRI's; anticholinergic side-effects are a frequent concern (especially with tricyclic antidepressants and paroxetine); elderly are at higher risk of tardive dyskinesia and higher risk of drug-induced Parkinsonism (this includes SSRI's and antipsychotics).
- Polypharmacy and drug interactions: older adults on multiple medications face important drug interactions e.g. cytochrome P450 system.
- Compliance: this may be affected by cognitive impairment, limited finances, sensory impairment, problem drinking and drug side-effects.
- Falls risk: increased by SSRIs in particular.

SSRI antidepressants are recommended as a first line option – low doses initially, increase slowly and review frequently to monitor efficacy, side-effects and compliance. If the SSRI is ineffective, consider a broader acting antidepressant (such as venlafaxine, duloxetine, desvenlafaxine, mirtazapine or a tricyclic).

However, remember that response rates to a first treatment trial are normally low, around 30-40%, and this may improve with longer treatment, switches to other antidepressants, or alternative treatment approaches e.g. augmentation.

Aetiology and homocysteine

Depression is likely to be the result of various contributing factors: genetic susceptibility; gender (more common in women); comorbid physical ill-health; medication effects (e.g. drug interactions, beta blockers); certain personality traits; psychosocial factors; cardiovascular risk factors; cerebrovascular disease; and negative life events.

More recently, an association between elevated plasma homocysteine and depression has been noted. Homocysteine is an amino acid derived from the essential amino acid methionine. Vitamin B12, B6 and folic acid are all involved in the metabolism of homocysteine and supplementation of these vitamins has been shown to decrease plasma homocysteine levels by 25-30%. An association between elevated plasma homocysteine and depression has been noted in numerous cross sectional studies.

The West Australian Centre for Health and Ageing (WACHA) recently examined the association of prevalent depression with plasma total homocysteine (tHcy) in 3752 older men. The odds ratio (OR) of prevalent depression increased by 4% (OR, 1.04; 95% confidence interval [CI], 1.02-1.05) with every unit increase of tHcy (micromoles per litre). In addition a meta-analysis of studies investigating the association of homocysteine and depression showed that older adults with high homocysteine had an increased risk of depression (OR 1.70 95% CI 1.38-2.08). ■

New WA trial recruiting patients

WACHA is currently enrolling patients for a trial to examine the depression-hymocysteine association further.

The 388 participants with major depression will receive citalopram (20 to 40 mg) and be randomly assigned to receive vitamins B12, B6 and folic acid or placebo in a double-blind manner. The participants will remain on the citalopram for at least 12 weeks. Thereafter, their treatment will be devolved to their GP who, with them, will decide on further antidepressant treatment. Participants will be asked to take the vitamins/placebo for 52 weeks and be followed up by the trial team.

The trial hypothesises that participants randomised to receive vitamins will be more likely to improve during the 12 weeks and less likely to be depressed at 6 and 12 months.

WACHA invites referrals of potential participants aged ≥60 years i.e. with depressive symptoms, English speaking, and no life-threatening medical illness. Please contact the study coordinator Dr Varsha Hirani on 9224 2032 or alternatively Cheryl Ackoy on 9224 2855.