

Eating disorders, weight loss, and malnutrition in elderly patients

This article reviews the leading causes of involuntary weight loss in older people. We look at the underlying psychiatric and neuropsychiatric causes including depression, dementia, and longstanding eating disorders. We consider the negative consequences of these conditions and suggest management strategies.

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Anorexia and weight loss are frequent presenting symptoms in general practice, geriatric medicine, and old age psychiatry. Weight loss and malnutrition in older people have serious consequences on patients' functional abilities, morbidity, and mortality. According to Huffman and colleagues,¹ the leading causes of involuntary weight loss in the elderly include depression, cancer, and cardiac and gastrointestinal disease. Polypharmacy is another common culprit, as are socioeconomic factors (box 1).

A full history and examination should be done with haematological and other relevant investigations. These assessments will often reveal the underlying cause of weight loss. However, in a quarter of patients, no cause of loss of appetite is identified, and this so-called unexplained weight loss could have an underlying psychiatric or neuropsychiatric cause, which could be effectively treated.

Depression

Reduced appetite and weight loss are listed as important symptoms of a depressive disorder in the International Classification of Disease 10;³ they are considered as somatic symptoms of depression (box 2.) Elderly patients with depression are more likely than their younger counterparts to present with somatic symptoms⁴ and may deny low mood. Such patients are less likely to be identified in primary care as suffering from depression and are, therefore, less likely to receive treatment.

Controversy exists as to whether certain antidepressants, particularly the newer selective serotonin reuptake inhibitors, can cause weight loss in older people. Studies have shown that, in patients with depression, selective serotonin reuptake inhibitors are not associated with disproportionate weight loss when other important variables are accounted for.⁵ Clinicians should therefore be wary of denying treatment to older patients

on these grounds. In patients older than 80 years, or any patients with a history of peptic ulcer disease, a proton pump inhibitor should be prescribed concurrently with these antidepressants because of an increased risk of gastric bleeding.⁶

Dementia

Most studies of weight loss in dementia have looked at patients with Alzheimer's disease. Weight loss is listed as a symptom consistent with Alzheimer's disease in the 1984 criteria set by the US National Institute of Neurological and Communicative Disorders and Stroke and the Alzheimer's and Related Disorders Association.⁷ Patients with Alzheimer's disease have significant weight loss compared with controls at all stages of their illness and some evidence suggests that the severity of dementia correlates with degree of weight loss.⁷ This association between weight loss and Alzheimer's is in addition

Box 1: Reasons for weight loss in elderly patients

Social factors

- Poverty
- Loneliness
- Isolation

Psychological or psychiatric factors

- Depression
- Reduced social networks

Physiological factors

- Changes in taste and sensory-specific satiety (increased cholecystokinin, leptin,

and cytokines)

- Delayed gastric emptying
- Altered digestion response
- Altered hormonal response²

Medical factors

- Diseases
- Medications
- Poor dentition
- Reduced lean body mass

Box 2: International Classification of Disease 10 somatic syndrome in depressive disorder³

- Marked loss of interest or pleasure in activities that are normally pleasurable
- Lack of emotional reactions to events that normally produce an emotional response
- Waking in morning 2 hours or more before usual time
- Depression worse in the morning
- Objective evidence of marked psychomotor retardation or agitation
- Marked loss of appetite
- Weight loss (5% or more of bodyweight in the past month)
- Marked loss of libido

to the weight loss that occurs with ageing. Box 3 shows theories for the physiological processes underlying this weight loss.

Studies have shown that dementia-associated weight loss often begins before the onset of the clinical syndrome.¹⁰ The Honolulu-Asia Aging study, a 32-year prospective study, showed an increasing difference in body-mass index between patients with and without dementia over the 6-year period before diagnosis of dementia, with an additional weight loss those with dementia at the end of the study period. In many cases weight loss occurred 2–4 years before reaching the clinical threshold for dementia. The association between dementia and late-life weight loss was independent of many potential confounding factors and was much stronger than associations with other independent variables. The authors suggested that neurodegenerative processes beginning before clinical diagnosis could be a primary cause of weight loss. Finally, a 6-month behavioural study of institutionalised patients with Alzheimer's disease showed that behavioural disturbances such as aggression and agitation were correlated with weight loss.¹¹

Anorexia nervosa and bulimia nervosa

Scant evidence exists regarding elderly patients and eating disorders. Eating disorders are, however, increasingly recognised in younger people, and are known to run a chronic course. Therefore, the expectation that elderly patients may have underlying abnormal eating behaviours that have continued into later life is not unreasonable.

Old age is a period in which individuals often experience significant life events such as bereavement, retirement, loss of independence, physical ill-health, and institutionalisation, all of which may precipitate an exacerbation of an underlying eating disorder. Longer-term follow up studies of patients with eating disorders are required to shed further light on the outcome of these patients.

Assessment and management

Although reduced food intake is not necessarily pathological in older people, when accompanied by weight loss and malnutrition the consequences include impaired muscle function, anaemia, reduced cognitive function, poor wound healing, delayed recovery after surgery,¹² increases in physical dependence, systemic infections, and

Box 3: Theories for weight loss in dementia

Neurodegeneration and changes in neurotransmitters

- Reduced concentrations of 5-hydroxytryptamine in lateral hypothalamus—serotonergic dysfunction occurs in anorexia
- Atrophy of mesial temporal cortex associated with low body-mass index in Alzheimer's disease⁸—the mesial temporal cortex is involved in feeding behaviour directly or indirectly (ie, reduced skills and physical activity, or reduced oestrogen, and increased cortisol and tumour necrosis factor, which in turn worsen this atrophy)
- Reduced orexigenic factor concentrations (neuropeptide Y, ghrelin) leading to anorexia

Impaired olfaction associated with Alzheimer's disease and modified by apolipoprotein genotype (e4 associated with Alzheimer's disease and weight loss)

Higher energy requirements

Increased burden and stress on carer leading to reduced provision of adequate nutrition

Consequence of other symptoms of dementia such as confusion, poor memory, and coordination difficulties⁹

burden on the caregiver. The resulting morbidity and mortality has obvious impact on elderly people and their families as well as health services and social services.

Management should be directed at underlying pathology, for example, treatment of physical illness, or use of antidepressants or cholinesterase inhibitors. If no cause is found, then nutritional management is key, with regular monitoring of weight and haematological and biochemical markers. Several interventions have been identified that improve oral intake in dementia (box 4). In the later stages of dementia, decisions about continuing feeding in those patients unable to maintain adequate oral intake need to be handled sensitively through discussions with the multidisciplinary team, including carers' wishes and any known wishes of the patient.⁹

In younger people various psychotherapies are key for management of eating disorders and are recommended in the NICE¹³ guidelines for treatment. These psychological therapies include cognitive behavioural strategies, cognitive analytical therapy, interpersonal therapy, and family interventions. No evidence is available of such treatments in older people; however, psychological therapies for other psychiatric and psychological problems have been effective in older patients.¹⁴

Box 4: Interventions to improve oral intake in dementia⁹

Use of familiar foods
 Appropriate food consistency
 Nutritional supplements can be given as supplements or as sole source of nutrition
 Skill and number of carers
 Helpful techniques include spoon feeding, stroking the chin to elicit a swallow reflex, or gentle pressure to nostrils
 Timing of meals and feeding environment
 Be flexible depending on the time the patient is most alert

I have no conflict of interest.

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