Geriatric failure to thrive

In this issue, Shum et el[1] studied the "Prevalence of malnutrition and risk factors in geriatric patients of a convalescent and rehabilitation hospital". Malnutrition was a common occurrence and associated with increased mortality. Dependent patients and those from a residential setting were particularly at risk. The findings concur with existing literature that reveals a high prevalence of malnutrition in 5% to 10% and 30% to 60% of free living and homebound or residential clients, respectively.[2] In the study by Newman et al,[3] moderate weight loss, defined as 5% over 3 years, was an independent marker of mortality in older subjects. Geriatric failure to thrive (GFTT) is a syndrome and can be clinically approached in a systematic manner.[4] The mnemonic 'MEALS ON WHEELS' is a useful checklist for eliciting the causes of GFTT: Medications, Emotional problems (depression), Alcoholism/anorexia of ageing/abuse, Late-life paranoia, Swallowing disorders, Oral problems, Nosocomial infections, Wandering and other dementia-related behaviour, Hyperthyroidism/hypercalcaemia/hypoadrenalism, Enteric problems (malabsorption), Eating problems, Low-salt/low-cholesterol diets, and Stones.

Anorexia of ageing has often been overlooked as a cause of subnutrition in the elderly, the former being grounded strongly on a physiological basis. Morley[5] has written extensively on the phenomenon and described mechanical, neuroendocrinological, and inflammatory factors that interplay to reduce the appetite of the elderly. In the older person, food passes rapidly to the antrum with minimal fundal relaxation, thereby increasing the feeling of satiety. Increased activity of cholecystokinin and cytokines, and reduced activity of androgens, particularly in men, are implicated in the pathogenesis of anorexia of ageing. Weaker evidence also exists for reduced activity of ghrelin and raised activity of leptin. Other factors such as poverty, restricted physical function, psychology, medical co-morbidity, and medication also play a role in the genesis of anorexia. Average food intake is about 30% lower in the elderly than in young adults and will predispose to protein energy malnutrition.[5,6] Anorexia of ageing is also to be appreciated in the wider picture of frailty of old age. Other factors including inactivity, pain, depression, co-morbidity, cognitive impairment, atherosclerosis, and vascular diseases operate together under genetic, socio-economic, and educational influences to produce frailty. The same physiological and immunological parameters account for sarcopenia, that accompanies frailty of old age.[7] Protein energy

malnutrition in nursing homes is estimated to occur in 17% to 65% of residents, and is associated with decubitus ulcers, cognitive impairment, postural hypotension, infection, anaemia, need for recurrent hospitalisation, and mortality.[8] A resident who refuses to feed should be evaluated for dysphasia, depression, drugs, intercurrent disease, a self-made decision to stop eating, and dementia.[9] Demented clients are at high risk of weight loss, especially if hospitalised, and are twice as likely as control subjects to lose 5% to 6% of their initial weight. Weight loss can occur even before the clinical presentation of significant cognitive impairment: body mass index was found to correlate with medial temporal cortex atrophy. Weight loss can be profound in the terminal stage of dementia. Early detection and dietary intervention may prevent weight loss and malnutrition.[10] Self-feeding difficulties and disturbance in weight regulation underlie the mechanism of weight loss in dementia.[10,11]

The NICHE protocol for eating disorders highlighted symptoms of dementia, that is, apraxia, agnosia, and amnesia, in relation to feeding difficulties. Changing food texture, moistening food, serving food as finger foods, larger portions early in a day and one item a time, and, in particular, employing feeding assistants can effectively ameliorate feeding problems in demented persons.[12] The authors also emphasised the importance of the mealtime environment: it should provide bright light, contrasting colours, music, homeliness, proper posturing, minimal distractions, and adaptive devices to enhance the food intake of demented persons. Thomas et al[13] developed a clinical guideline for nutritional management in long-term care to ensure comprehensive evaluation and care planning. Biochemical, clinical, and ethical considerations, including advance directives, were included in the algorithm. Management of dysphagia in dementia does not equate with insertion of a nasogastric tube. Local pathology such as oral candida and ill-fitting dentures should be looked for, and treated or corrected. Sedatives and anti-cholinergic medication should be stopped. Food flavour can be enhanced and served either hot or cold. Snacks can be offered generously. Care providers and family members should accept malnutrition and end-of-life care options.[14]

Terminally ill patients who do not receive nutritional support experience no hunger or thirst, and small amounts of food and fluid combined with good mouth care are sufficient to alleviate dry mouth or slight

hunger.[15] The Hastings Center Report in 2001[16] remarked that two decades of experience with tube feeding provided irrefutable proof that the beneficial effects were fictional. A nasogastric tube does not improve nutrition, prolong life, prevent aspiration or pressure sores, nor maintain comfort.[14] On the contrary, there are excessive physical and chemical restraints and deteriorating quality of life with nasogastric tube feeding. Similarly, percutaneous endoscopic gastrostomy tubes deprive the older demented adult of one of the last primitive sensations: the taste of food in their mouth.[17] When a resident with advanced dementia stops feeding and strategies to enhance food intake have been exhausted, the family members or health care proxy should be informed that feeding problems are characteristic of advanced dementia. Hand feeding should be continued as far as it is tolerated, and palliative options offered.[18] Orexigenic and anabolic agents are either not effective or limited by their cost and side-effects.[19] A molecular-based therapeutic approach that draws biochemical reference from cancer cachexia may shed some light on the management of anorexia of ageing.[20] Nonetheless until more effective and practical pharmacotherapeutics are available, and possibly even then, Florence Nightingale's wisdom will prevail: "Every careful observer of the sick will agree with this, that thousands of patients are annually starved in the midst of plenty from want of attention to the ways which alone make it possible for them to take food. I would say to the nurse (the doctor also applies), have a rule of thought about your patient's diet… Consider, remember how much he has had and how much he ought to have today."

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