Healthy Ageing: Impact of Sarcopenia and Hormonal Replacement

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Maintaining health and functional independence are important aspects in healthy ageing. Muscle mass and strength are key determinants of physical capacity and functioning in older people. Short-term intervention strategies for sarcopenia can include resistance exercise and treatment with anabolic hormones. This presentation would focus on a review of clinical effects of anabolic hormones in sarcopenia in older adults. Testosterone replacement therapy is the most consistently reported beneficial anabolic hormone in hypogonadal men with improvement in muscle mass and improvement in strength. Potential risks of testosterone therapy have to be monitored regularly. Adverse effects include fluid retention, gynaecomastia, polycythaemia and acceleration of prostate tumour. Most clinical studies are of short to medium-term duration only. Long-term study greater than 3 to 5 years is needed in the future. The role of growth hormone in the treatment of sarcopenia is quite controversial. Growth hormone consistently improves body composition in older adults with an increase in lean mass and reduction in fat mass. In healthy and fit older adults, there is no improvement in muscle strength or physical function. Adverse effects are common for older adults who are treated with growth hormone for 6 months to one year. However, short-term low-dose growth hormone therapy in frail malnourished older adults improves the lean mass with a corresponding improvement of physicial function without adverse effects. Short-term growth hormone therapy would also improve physical function in elderly hip fracture patients. Unfortunately, treating medically unstable or critically ill patients with growth hormone would lead to an increased mortality and must not be used. The effects of other hormones on sarcopenia and muscle strength are uncertain. Overall, we need to consider the benefits versus risks of these anabolic hormones when they are administered in the different subgroups of older patients with sarcopenia.

Common Urological Problems in the Aged Males
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Urological disease increases in prevalence with aging, and with the significant increase in the life expectancy, the majority of men will probably be affected by a urological disease during their life time. Urologic problems in elderly patients often require special management that considers life expectancy, general health, and the clinical significance of the disorders. This has also imposed a major impact on the public health resources.

Benign prostatic hypertrophy – Most men will live to an age where they have an 88% chance of developing histological BPH and a more than 50% chance of being symptomatic from benign prostatic obstruction. BPH seldom reduces the duration of a man’s life, but it may impact heavily on his quality of life and on those closest to him. While surgery remains the mainstay of treatment for symptomatic BPH, medical therapies are increasingly used with proven effect. However, this can cause significant economic implication. Moreover, the concept of “shared care” has been developed to encourage the primary health care physicians to manage their patient with BPH.

Prostate cancer – This is the most common malignancy affecting men beyond middle age, and is the second most common cause of cancer death in the western world. Hong Kong is catching up in this aspect and prostate cancer is a more and more important disease in our locality. On one hand the arguments of whether we should do PSA screening and early detection of prostate cancer goes on; while on the other hand, the effectiveness of early radical surgery or radiotherapy are yet to be proved.

Erectile dysfunction – The treatment of the disease had been revolutionised since the last decade. With clarification of the physiological mechanism of erection, PGE1 and, later PDE5 inhibitors were introduced for the treatment of the problem. Initially, intracorporal injection and topical therapy is required. Now, the oral administration of PDE5 inhibitors is the main stay of treatment. Other health problems such as urinary incontinence and andropause could also be diagnosed and treated if men’s awareness of these problems was greater.

Making Healthy & Active Ageing Policies for Psychosocial Well-being for All Ages
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Parallel with technological advancements and improvements in health and social care systems, people’s lives have been prolonged and even deaths are denied in the face of what often used to be incurable. The result of this, however, is a rapid increase in the number of older people with disabilities and degenerative diseases – for these our health care system is much less capable of preventing or curing. For a simple answer, additional funding to improve medical interventions including adoption of advanced technologies for old age ailments appears to be the solution. Years of painful experience in European and North American countries whose populations aged earlier than Hong Kong’s has shown that medical interventions for old age illnesses are expensive and yet the outcomes are often only mediocre. Money spent in advanced care and technologies alone cannot solve the problems and this has been evident in other countries. It is patently clear that we need a totally different policy orientation towards the ageing population in places such as Hong Kong.

Healthy and active ageing are emerging concepts taken on board by the Elderly Commission of Hong Kong SAR Government to map out what should be done in the ageing process in achieving the best possible life for all and in particular for the older people. Healthy ageing, as depicted by WHO since the mid 1990s, marks a new orientation to diseases and health in old age and has evolved from a curative tradition to a health promotion premise which embraces those life attributes beyond individual health. In supporting this healthy ageing concept, the Commission has also adopted the WHO’s Active Ageing framework for policy formulation in three main areas: income security, social participation and health.

The present presentation attempts, while collating all the above issues into a coherent policy framework, to rationalise: 1) a caring community could be built by instilling psychosocial well being in individuals through healthy and active ageing policies; and 2) a pathway suggested by UN ESCAP through which such policies could be appraised and evaluated.

Cognitive Decline in Older People
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Over the last 5-10 years there has been a dramatic shift in key concepts of cognitive decline and dementia in older people. It is now physicians to that deterioration of cognitive function with advancing years comprises of a range, from very minor changes, through minimal cognitive impairment, and lastly dementia. Patients who start to decline cognitively are at high risk of continued deterioration and eventually dementia. The
boundaries between normal cognition, minimal cognitive impairment and dementia are artificial and indistinct. The full role of ischaemic vascular disease in cognitive decline has only recently been established. The combination of small vessel cerebrovascular disease with Alzheimer’s pathology is the dominant cause of major cognitive decline. Patients with dementia and a clinical diagnosis of Alzheimer’s disease usually have a vascular component. Vascular risk factors, including hypertension, smoking, diabetes mellitus, raised homocysteine, activated thrombosis and systemic inflammation are predictive of cognitive decline, of all-cause dementia, and of clinical Alzheimer’s disease. These risk factors in general operate in continuum across the whole spectrum of cognitive function. Therefore active management of vascular risk to prevent ischaemic cerebrovascular damage carries the promise of slowing cognitive decline of an ageing population, and reducing the incidence of dementia, including Alzheimer’s. There is evidence from randomised controlled trials that blood-pressure lowering is protective, however several years of cholesterol-lowering drug treatment appears not to be beneficial. Prevention of episodes of acute deterioration of cognitive function (delirium) is also likely to be important. Such episodes leave residual cognitive deficits, and increase risk of subsequent cognitive deterioration. Prevention of delirium in acute illness in older people can be achieved by protocols that emphasise good basic care, including sensory stimulation and active management of hydration status. Therefore cognitive decline in older people can be seen as a syndrome with multiple contributors, including vascular disease, Alzheimer’s pathology, and episodic deteriorations (delirium) in acute illness. Recognising this complexity of contributors potentially allows more effective targeted strategies to protect cognitive function in healthy older people. This may reduce the risk of major cognitive decline in old age.

The “New” Diploma in Geriatric Medicine (Glasgow)
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The Diploma in Geriatric Medicine Examination, which is run by the Royal College of Physicians and Surgeons of Glasgow, on behalf of the Scottish Colleges, was established some 15 years ago. In early 2004 the DGM management committee decided to radically change the format of the examination in line with modern educational thinking. Following an “away day”, attended by many of our experienced examiners, held in the Glasgow College, it was decided to modify both the written and clinical parts of the examination. The written examination, which previously had comprised short and longer essay questions has now been replaced with one 90-minute paper, comprising 9 extended matching set questions, and 12 short answer questions (which require no more than a couple of sentences to answer). The clinical examination has been based on the MRCP PACES format, and has four stations, each lasting 20 minutes. Station 1 involves targeted history taking and examination of a patient with chronic disabling disease. Station 2 is an ethics station, interviewing an “actor” or “surrogate”. Station 3 involves assessment of cognitive function or language disorder, and sensory impairment – either low visual acuity or deafness. Station 4 is an electronic station, where candidates are faced with 10 PowerPoint slides of images, for example retinal images, electrocardiograms, chest X-ray and a gait disorder, and are required to answer short questions on each slide. The first diet of the new examination was held successfully in Glasgow in November 2004, where Dr T K Kong and Dr S Y Au participated as observers and examiners. The second sitting in Glasgow was held in May 2005, and during the week commencing June 2005 in Hong Kong for the first time. My colleagues and I in Glasgow look forward to a long and successful collaboration with colleagues in Hong Kong in establishing and developing the DGM (Hong Kong).