

# Going the distance

Age management medicine can help you forestall ageing, avert diseases and enjoy a long healthy life



As a country, we are ageing fast. Life expectancy of the local population is quickly approaching 80 years. Longer lives, unfortunately, mean that we are likely to spend a longer period of time with some form of chronic degenerative illness such as heart disease, cancer, stroke and diabetes. To make matters worse, research is showing a trend towards the earlier onset of these degenerative diseases, probably as a result of our stressful and often decadent lifestyles.

Thankfully, age management medicine may provide a plausible solution to this problem. While anti-ageing medicine has gained much notoriety for its uncorroborated implications, age management medicine, in contrast, converts known and accepted markers of disease into proactive patient management. This encompasses the goals of helping patients regain and maintain optimal health and vigour, improving their quality of life and increasing their health spans and lifespans.

## Ageing successfully

In scientific terms, ageing refers to the gradual changes in the structure of a mature organism that occur normally over time, and increase the probability of death and disability. This inevitable and irreversible process occurs from the moment we utter our first cry as a baby, and stirs up much dread in most of us. With a bit of help, however, we can avert these changes and ensure that we age successfully.

But what exactly does it mean to age successfully? In 1961, Havighurst defined this as "adding life to the years" and "getting satisfaction from life". More recently, in 1995, Palmore defined this as a combination of "survival, health and life satisfaction" in the *Encyclopedia of Ageing*. Age management medicine strives to fulfill these very objectives – to reduce the biological effects resulting in cell death and damage so as to reduce disability and disease, improve function and quality of life, and prolong life.

Age management medicine recognises lifestyle modifications such as stress reduction, dietary changes and exercise as integral aspects of this battle against time. Patient education is therefore paramount in age management. Of course, dietary supplementation, hormonal modulation

(continued from pg 30)

and the control of existing medical conditions follow on as an important part of patient management, and must not be neglected.

## Why hormonal modulation?

Hormones are chemical messengers needed for communication between cells that control the majority of bodily functions. Unfortunately, a decline in hormone levels, with the exception of the hormones cortisol and insulin, is seen as early as the late twenties or early thirties. This is commonly associated with lethargy, weight gain, an increase in the ratio of body fat to lean muscle mass, mood swings, memory loss and poor concentration abilities, sexual dysfunction, bone loss, an increased risk of osteoporosis and a decline in cardiovascular fitness.

## Menopause and perimenopause

For women, menopause, has been identified as a time of drastic changes due to the decline in the female hormone, oestrogen. However, what most women aren't aware of is that, prior to menopause, they will experience a time of progesterone deficiency and oestrogen dominance. Known as perimenopause, this may start from the age of 35 and is usually accompanied by an increase in bloating, breast tenderness and mood changes prior to periods. But more importantly, this period of oestrogen dominance increases the risk of both benign and cancerous breast lumps, fibroids, endometriosis, adenomyosis and endometrial hyperplasia.

Progesterone replacement is therefore important for symptom control and reduces the risk of common gynaecological problems during perimenopause. If progesterone replacement is considered, it is important to note that progesterone should be replaced instead of progestogens. The latter has different effects from natural progesterone and may be associated with increased risk of breast cancer, as well as other side effects such as bloating, breast tenderness and acne. Progestogens may also not have any of the beneficial side effects of natural progesterone on the mood, water retention and sleep.

It is also clear now that, if considered,

oestrogen replacement should be started as early as possible during menopause. Delayed replacement of oestrogen may prove more harmful than beneficial in cardiovascular disease prevention.

## Andropause and testosterone levels

Men experience a similar dip in hormone levels with age, especially during andropause. From the age of 40, free testosterone levels decline at a rate of 1.2 per cent. This is because, with age, total testosterone levels decline and oestrogen production increases, bounding existing testosterone levels and rendering them inactive.

As a result, 20 per cent of men between the ages of 60 and 80 have a lower than normal testosterone level. However, being more subtle than the decline of oestrogen levels in women, this is often dismissed as a normal part of ageing. This is alarming given the fact that men with a 'normal' but sub-optimal level of testosterone run an increased risk of developing insulin resistance. As a result, they run an increased risk of coronary heart disease and diabetes mellitus. Moreover, even though osteoporosis is commonly thought of as a woman's disease, one third of osteoporotic fractures occur in men, with andropause being a significant risk factor.

## Insulin resistance

Usually due to an increase in the percentage of body fat, insulin resistance also increases with age. As a result of increasing resistance to insulin, the amount of insulin produced in the pancreas increases as well. High fasting insulin levels in turn increases the risk of high blood pressure, atherosclerosis and consequently, heart disease, strokes,

diabetes and Alzheimer's disease.

Furthermore, an increase in insulin resistance as well as an increase in cortisol result in a hike in the average blood glucose level and fasting glucose level. And the higher the average blood glucose, the greater the amount of glycation, a substance responsible for the binding of sugar to protein molecules. Being fifty times more likely to produce free radicals, glycated proteins increase the risk of hypertension, heart disease, diabetes and complications, cancers

and Alzheimer's disease. In fact, even when within the normal range of HbA1C levels of five to six per cent, there is a 28 per cent increased risk of dying from heart disease, stroke, cancer and diabetes.

With that said, weight loss and fat loss through dietary changes and exercise, hormonal modulation and the use of drugs such as metformin (an insulin sensitiser) are important to bring about

a decrease in fasting insulin levels. This lowers the risk of developing these common chronic diseases.

Age management medicine, therefore, incorporates the knowledge of diseases and their pathogenesis to educate patients and empower them to be proactive in managing their health conditions. Combining dietary changes, exercise, hormonal modulation and conventional management of existing medical condition can help patients forestall ageing, avert diseases and stay healthy for a longer time. ♥

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