



Aging male



Assoc. Prof. Dr. Chanvit Kotheeranurak

Now a day, tremendous development of medicine, change of living environment, housing accommodation computer have led to extension of human life expectancy. The population of 60 years old up will increase from 328 millions in years 1990 to 828 millions by years 2020 (united nation, 2001). In Thailand, the aged population will reach 7.6 millions by the year 2010 (11.4% of total population). In aging male, the incidence of many non communicable diseases is increasing such as metabolic syndrome (DM, dyslipidemia, hypertension, and obesity), coronary heart disease, cerebrovascular disease and disease of endothelial dysfunction. At the same time, the gradual decrease of several hormones, for instance, growth hormone, sex hormone, thyroid hormone; etc, also lead to hormonal imbalance which contributes to metabolic syndrome, chronic fatigue syndrome, chronic hypogonadism and sexual dysfunction. All of these affect quality of life, self confidence and social behavior of the aging male. Many studies focus on providing the hormone supplement such as androgen, growth hormone, etc in order to improve quality of life and correct metabolism. Prostate specific antigen (PSA), a tumor

marker, should be measured in order to early detect the growth and metastasis of tumor from hormonal replacement therapy. Mild to moderate aerobic exercise regularly, low fat intake and low carbohydrate diet as well as stress management are strongly needed to prevent the disease of endothelial dysfunction and hormonal imbalance.

Contrast to the menopause female, the process of aging male genital system is slow and highly variable between individuals. Impairment of spermatogenesis is a continuous, decades-long process that may never reach the point of infertility. Men do not experience a sudden fall in Leydig cell or seminiferous tubular function as they age; however, there is a slow and persistent decrease in sperm production with aging. Only one-third of men over the age of sixty and 50% of men over the age of eighty are completely infertile. Men are still fertile even over ninety years of age. Similarly, testosterone production falls slowly rather than precipitously. Clinical signs of male aging include decreased muscle mass and strength, reduced sexual hair, and diminished libido and sexual performance were found.

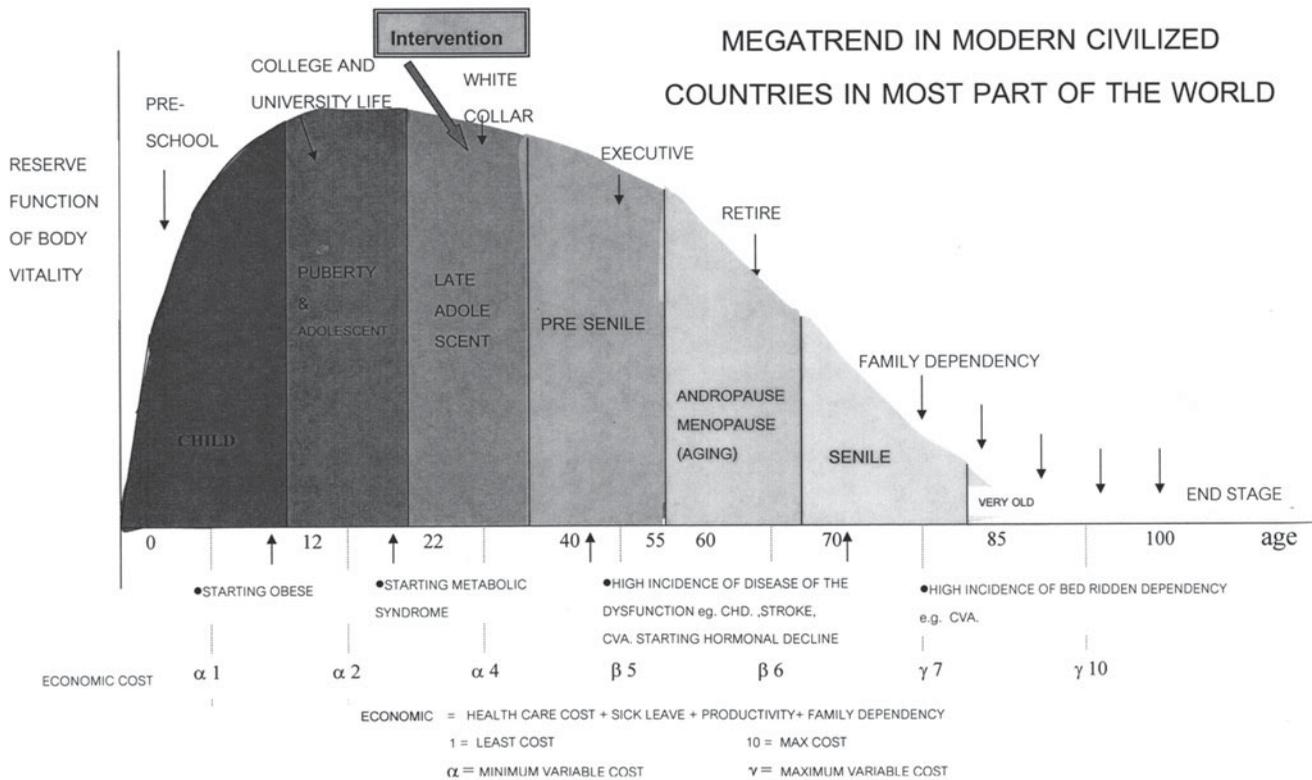


Fig. 1 Shows aging process with the non communicable disease involved.

Sexuality and libido in aging men

A decline in frequency of intercourse is observed after the age of forty and becomes more pronounced between the fifties and seventies. However, it must be realized that many factors influence the frequency of intercourse, including sexual desire, opportunity, general health, mobility, and medications.

While only 15 percent of men over sixty years of age claim they have no interest in sexual activity, the corresponding rate in women is several times higher. Thus, lack of sexual interest of their spouse may induce the male to give up regular sexual activity.

According to the Massachusetts Male Aging Study, complete loss of erectile function is reported by 5 percent of men at age forty, and by 15 percent of men aged seventy years, while moderate erectile dysfunction occurs in 17 percent and 34 percent, respectively.

Endocrine insufficiency, including hyperprolactinemia, leads to less than 5 percent of men with erectile dysfunction (ED). Erectile dysfunction in older men is,

in fact, multifactorial in origin. The most important cause is peripheral vascular disease, but diabetes mellitus, peripheral neuropathy, pelvic surgery, impaired fat metabolism, and renal insufficiency may also contribute. Cigarette smoking is an independent risk factor, as well as an indirect cause of ED, due to its deleterious effect on cardiovascular disease. Drugs may also impair sexual function, including antihypertensive agents (beta blocking agents and angiotensin-converting enzyme inhibitors), psychopharmacological agents, antiandrogens, antihistamines, diuretics, and chemotherapeutic agents.

In many cases, erectile dysfunction is the first indicator of the significant cardiovascular disease. The patient who presents with new onset ED to his primary care physician should be carefully investigated for symptoms and signs of cardiovascular disease. Furthermore, in many cases, erectile dysfunction is the first clinical sign of a significant cardiovascular pathology, especially coronary artery disease.

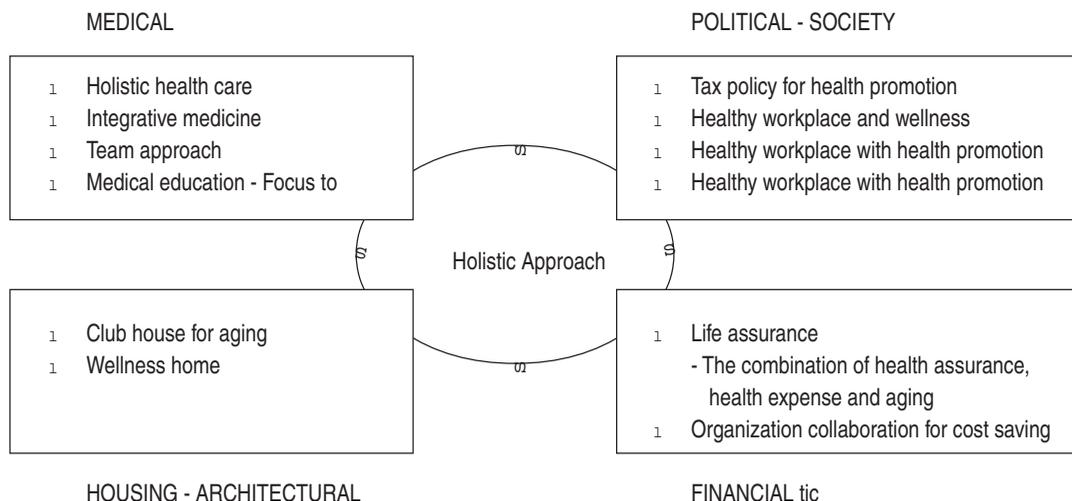


Fig. 2 The holistic approach in aging male management of Thailand

Conclusions

Current knowledge regarding the aging male remains inadequate. Androgen deficiency in the aging male will likely increase as the population continues to age and the average life span increases. The primary care physician should continue to be in the forefront of dealing with these problems and must apply available knowledge to help his or her patients to reach the reasonable treatments.

REFERENCES

1. Deck R, Kohlmann T, Jordan M. Health - related quality of life in old age: Preliminary report on the male perspective. *The aging male* 2002 ; 5: 87-97.
2. Lunenfeld B. Men's health and aging: the 5th world congress on the aging male. *The aging male* 2006; 9(1):1-70.
3. Kohn MF. Testosterone and body functions. *The aging male* 2006; 9(4):183-8.
4. Tenover LJ. Testosterone and the aging male. *C of andrology* 1997; 18(2) :103-6.
5. Rajfer J. Decreased testosterone in the aging male. *Rev urol* 2003; 5 :S1-S2.
6. Kandeel RF, Koussa TV, Swerdluff SR. Male sexual function and its disorders: Physiology, Pathophysiology, Clinical investigation and treatment. *Endocrine Reviews* 2001; 22(3) :342-88.
7. Guay TA. Testosterone and erectile physiology. *The aging male* 2006; 9(4) :201-6.
8. Dicz falusy E. The aging male and developed countries in the 21st century. *The aging male* 2002; 5 :139-46.