

UNDERSTANDING OF ANDROPAUSE AND ITS AYURVEDIC MANAGEMENT: A CONCEPTUAL STUDY

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ABSTRACT

The term andropause has been used to denote age related decline in testosterone concentration. Although this term is misnomer because, there is no discrete time when testosterone concentrations decline abruptly. In epidemiologic surveys, low total and bio-available testosterone concentration have been associated with decreased self protected physical functions, depression, impaired cognitive functions. Male sexual dysfunction has been elaborately described as *Klaibya* in Ayurvedic classics. Age of a person is divided into three parts, viz., *jaghanya* (childhood), *madhya* (adulthood) and *pravara* (old age). According to *Acharya Charaka* in old age there is progressive diminution of *dhatu* i.e. tissue element, strength of sense organs, vitality, manliness, valour, power of understanding, retention, memory power, speech and analyzing facts. There is gradual diminution in the qualities of *dhatu* and dominance of *vata*. Testosterone replacement therapy is used now a days for the treatment but associated with a number of side effects like prostate cancer and exacerbate cardiovascular risks. Ayurvedic treatment approach like use of *rasayana*, *vajikarana dravya*, *medhya dravya* provide great opportune for successful treatment of such conditions.

Keywords: Andropause, testosterone, depression, *vajikarana* and *vrishya*.

INTRODUCTION

The terms "male menopause" and "andropause" are used in the popular media and are misleading, as they imply a sudden change in hormone levels similar to what women experience in menopause.¹ The term andropause has been used to denote age related decline in testosterone concentration.² There is no discrete time when testosterone concentrations decline

abruptly.³ Late onset hypogonadism is the condition which represents andropause in males. Male sexual dysfunction has been elaborately described as *klaibya* in Ayurvedic classics. The word *klaibya* in *vajikarna* refers to impotence i.e. a man who is unable to perform sexual intercourse, being powerless, helpless or the inability to carry out sexual activities.⁴ In the old

age, generally the semen gets diminished. In Ayurvedic text *Jrajanya klaibya* is explained with etiological factors, symptoms. *Jrajanya klaibya* seem to carry a very scientific approach indicating that *virya* get *sheena* with age. Presentation of late onset hypogonadism is similar to *Jrajanya klaibya*. Late-onset hypogonadism is an endocrine condition as well as a result of aging.⁵ Late-onset hypogonadism is a rare condition in older men, characterized by measurably low testosterone levels and clinical symptoms mostly of a sexual nature, including decreased desire for sex, fewer spontaneous erections, and erectile dysfunction.⁵ It is the result of a gradual drop in testosterone; a steady decline in testosterone levels of about 1% per year can happen and is well documented in both men and women.^{6,7} 20% of men in their 60s and 30% of men in their 70s have low testosterone and around 5% of men between 70 and 79 have both low testosterone and the symptoms, so are diagnosed with late-onset hypogonadism.⁷ Change occurs in all men, may occur as early as age 45 to 50 and more dramatically after the age of 70 in some men, and that women's and men's experiences are somewhat similar phenomena.^{9,10} According to *Acharya Charaka* old age is from 60 to 100 years. There is gradual diminution in the qualities of *dhatu* and dominance of *vata*.¹¹

Objective

1. To understand the concept of andropause in terms of modern view
2. To understand the concept of andropause in term of Ayurvedic view
3. Ayurvedic management of andropause

Type of Study

Descriptive and fundamental

Causes of Andropause

Andropause is preceded by a condition called Hypogonadotropic hypogonadism.¹² A downturn in the circulation of testosterone can cause the hypothalamus and pituitary gland to trigger a release of brain hormones that stimulate the testicles to ramp up production of testosterone.¹³ Although, as men age, despite low testosterone the levels of gonadotropin-releasing hormone (GnRH) and luteinizing hor-

mone (LH) will not raise. The luteinizing hormone, gonadotropic releasing hormone, and testosterone all are dropping below what is considered normal. Low GnRH, low LH, low testosterone indicates the syndrome of hypogonadotropic hypogonadism, and it is a downward trend that takes men closer to andropause. This phenomenon typically begins in the early forties. Eventually, testosterone levels drop to such low levels; the hypothalamus and pituitary kick in and produce high levels of GnRH and LH to compensate. This triggers the production of testosterone, which will generally work for a while, but then will fall again. That's when men enter andropause. They have a low testosterone and a high LH and GnRH, whereas before they had a low testosterone as well as low LH and GnRH. This shift in hormonal patterns occurs in all men at some point. The female version, a similar hormonal shift that occurs in women happens in a more narrow age grouping, from early forties to late fifties.¹⁴

According to Ayurvedic text *sukra dhatu* is the final tissue element produced from progressive metabolic transformation of *annarasa*. It is responsible for *Bala* (strength), *Varna* (color) and *upacaya* in both males and females and by this it can be presumed probably the whole endocrine system with special reference to hypothalamo hypophyseal gonadal hormone can be included under the term *sukra*. *Jrajanya klaibya* is caused due to depletion of *rasa dhatu* which occur in old age due to intake of substandard (*gramya*) diet and ingredients of food which are sour, saline, pungent and alkaline, intake of dry vegetables, meat, sesame seeds and pastries, intake of freshly harvested corn with bristle and pulses, sexual enjoyment with women and alcoholic drinks, excessive physical strain, excessive fear, hunger, grief, greed, infatuation and overwork. These all causes srotodusti. Srotodushti is the important state of routine pathogenesis of any disease. The word *klaibya* in *vajikarna* refers to impotence i.e a man who is unable to perform sexual intercourse, being powerless, helpless or the inability to carry out sexual activities.⁴

Symptoms of Andropause

The international society for the study of the aging male defines late-onset hypogonadism as a series of symptoms in older adults related to testosterone deficiency that combines features of both primary and secondary hypogonadism. The European male aging study (a prospective study of ~3000 men)¹⁵ defined the condition by the presence of at least three sexual symptoms (e.g. reduced libido, reduced spontaneous erections, and erectile dysfunction) and total testosterone concentrations less than 11 nmol/l (3.2 ng/ml) and free testosterone concentrations less than 220 pmol/l (64 pg/ml).⁵ Some men present with the symptoms, but with normal testosterone levels, and some men with low testosterone levels have no symptoms and the reasons for this are not known.⁵ Some men in their late 40s and early 50s develop depression, loss of libido, erectile dysfunction, and other physical and emotional symptoms such as irritability, loss of muscle mass and reduced ability to exercise, weight gain, lack of energy, difficulty sleeping, or poor concentration. Many of these symptoms arise from a midlife crisis or as the results of a long-term unhealthy lifestyle (smoking, excess drinking, overeating, lack of exercise) and may be best addressed by lifestyle changes, therapy, or antidepressants.¹ According to Ayurvedic text various symptoms are *sheena dhatu*, *daurbalya*, *vaikrat sharira*, effected by many diseases. It is a psychosomatic disorder and further *chinta* (worry), *shoka* (grief), *bhaya* (fear), *krodha* (anger), *avisrambha* (lack of trust towards female factor) causes sensory inhibition to brain which lead to development of psychogenic impotence. As such when *dhatu*s are vitiated, *srotas* are also affected as a natural consequence. Obstruction of the channels of circulation, *panduata*m (anemia), impotency (*Klaibya*), *Sadh* (asthenia), *Krishangta* (emaciation), *Agni-nash* (loss of the power of digestion), *ayathaa kaal valaya palitya* (premature appearance of wrinkles and greying of hairs)¹⁶ Due to the vitiation of *shukra* the individual becomes impotent (*Klaibya*) and there will be *aharshan* (even if there is erection of the genital organ there is no power of penetration).¹⁷ Signs and symptoms of *Jaraja Klaibya*-

- The tissue elements of the old man becomes diminished and excessively weak
- Complexion becomes perverted
- Physically and mentally weak
- Person succumbs to different type of diseases quickly

Diagnosis of andropause-

Testosterone levels decline gradually with age. Unlike females going through menopause, the decline in testosterone in men is gradual, and there is variation among individuals.¹⁸ Upon reaching 80 years of age, the rate of testosterone secretion has decreased about 50% for men.

Researchers conclude there is no black-and-white cut off for "low" or "suboptimal" testosterone. Different symptoms show up at different testosterone thresholds. Muscle mass and strength do not decline until testosterone drops quite low (significantly below normal levels) whereas libido may dampen with relatively small decreases in the hormone.¹⁹

Agreement on the threshold of testosterone values below which a man would be considered hypogonadal has not been reached. Male total testosterone levels below 300 ng/dl from a morning serum sample (most accurate measurement) are generally considered low.²⁰ To confirm the low levels of testosterone, doctors recommend repeating the measurement of morning total testosterone.²¹ A total testosterone level <200ng/dl measured by reliable assay in association with symptoms is evidence of testosterone deficiency. An early morning sample testosterone levels between 200 and 350 ng/dl the total testosterone level should be repeated and a free testosterone level should be measured.²² There is no *Ayurvedic* parameters for measurement of andropause but *Acharaya Charaka* says that when the men enter in *vridhavastha* his *virya* become *shenna*.

Ayurvedic management

Androgen replacement therapy is used in the modern science for treatment purpose. The Food and Drug Administration (FDA) stated in 2015 that neither the benefits nor the safety of testosterone have been established in older men with low testosterone levels.¹⁹ Adverse effects of testosterone supplementation may

include increased cardiovascular (CV) events (including strokes and heart attacks) and deaths, especially in men over 65 and men with pre-existing heart conditions.¹The minor side effects such as acne and oily skin, as well as significant hair loss and/or thinning of the hair. So, Ayurvedic management provide a effective treatment approach. Line of treatment of *jara-janya klaibya* is

1. Sodhana therapy-It is also directly indicated by *Acharaya Charaka* in *jrajanya klaibya* and also before the use of *rasayana* and *vajikaran* dravya *sodhana* therapy should be given for better result. It include *snehan,swedan* and *snehayukt verachanam*.

2. Rasayana therapy- *Rasayana* has been defined it is specific type of therapy to maintain the normal and perfect structure and functions of body cells. The abnormal cell may be normalized and damaged cell can repair and regenerated through *rasayana* therapy. In this therapy cells are maintained in two ways.²⁴ various *rasayana* can be used like *bharama rasayana, shilajeet rasayana, chayavanparash rasayana*.

3. Vajikarana use- According to *Acharya Charaka* the method of therapy which improve potentiality for getting offspring for the continuity of lineage ,treats all types of disorders of *sukra*, causes instantaneous sexual excitement and performance like a strong *vajikarana*.²⁵ *shatavari ghruta, apatyakar ghruta, vrisya basti* can be used. *Acharaya Sharangdher* explains *nagbala, kapikachu* as *vajikaran* dravya.

4. Medhya dravya

In *Charaka Samhita Acharya Charaka* has also narrated that *kama, krodha, bhaya, shoka* etc. factors affects *shukra, deha bala* and *satva bala* leading to sexual dysfunction *Medhya rasayana churna* has provided better results and which does not possesses any *vrishya* property primarily acting at the level of *manasa bhava* and higher functions relieve the psychological stress and in its remote *rasayana* effect may be act as on *shukravaha srotasa* as *vajikarana* and improves the sexual performance. Most of the drugs in *medhya rasayana churna* are having *guru, snigdha guna, sheeta virya* and *madhura vipaka* and *vata shamaka* too. Among them *mandukaparni* and *shankhapushpi* are especially mentioned for *medhya* proper-

ties. Thus, it can be said that these drugs act at the level of *manovaha srotasa*, higher mental functions and relieves the psychological stress. At the same time all these drugs are *rasayana* in action, which means it enhances the *bala* of *deha* and *indriya*. Therefore, *medhya* drugs are first pacify vitiated *satva* and then improves the quality of *shukra dhatu* due to *rasayana* effect.

5. Sukral dravya- *ashvagandha, musli, shatavari, sharkara* .

6. Sukra pravartak and Janak dravya- *Dugdh,maash,bhallatak phal mazza*.

7. Basti Karma- *Basti* works on *vata, shukra, shukravaha srotasa* and is able to cure the mental disorders too. Regulation of *mana* by *vata* helps to overcome the anxiety and depression and also causes *manovaharsana* in turn significantly improves desire. *Basti* improves the status of *shukra* which is responsible for all type of regeneration. Also *basti* eliminates waste material in the *pakvashaya* and cleans the *purishvaha srotodusti* and clears *shukravaha srotodushti* too. *Basti* has been applauded by all the *Acharyas* for its efficacy in overcoming the aggravated *vata* and advised to use the *basti* for the management of any disease by using specific drug prescribed or suitable for that condition.

8. Other Yoga- Therapeutic measures described for the treatment of *kshata-kshina*. Medicated enema, medicated milk, medicated ghee, aphrodisiac recipes and rejuvenating recipes. *Narsingha churn, puspghanva ras, purnchandraras, kamdev rasa, chandrodaya rasa,vanri vatika, aasvagandha ghruta, aamritprash ghruta* etc.

CONCLUSION-

Andropause in male is similar to menopause in females in which testosterone level decline at some point of age. It is characterized by condition hypogonadotropic hypogonadism in which there occur low level of testosterone, LH and GnRH. In Ayurveda this condition is represented by *jara-janya klaibya* in which the *virya* get *sheena* with the age. In modern science use of androgen replacement therapy does not seem so much beneficial because of side effects.

Ayurveda provide a very effective treatment for management of this condition. It includes use of *rasayana*, *vajikarana*, *medhya*, *sukral dravya* and *basti chikitsa*.

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