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Andropause, often referred to as the male version of menopause, is a term that has gained increasing attention over recent years. While women see menopause as a well-recognised life stage, many still fail to grapple with the idea that men too experience a gradual decline in their physical and mental wellbeing with age. However, as awareness about male andropause grows, it is becoming clear that this is a critical issue that deserves much more attention in medical, social and cultural discussions.

Defining andropause

Male hypogonadism is a clinical syndrome which comprises symptoms with or without signs and biochemical evidence of testosterone deficiency. This may be caused by impaired testicular function or inadequate stimulation of the testes by the hypothalamic-pituitary axis. The European Male Ageing Study reported a 0.4% per annum decrease in total testosterone,1 which highlights the increasing significance of male hypogonadism. Therefore, understanding the mechanism of male hypogonadism and its consequences is important for men's health.

"Andropause" is more appropriately named late-onset hypogonadism, which refers to the phenomenon of gradual decline in testosterone production with ageing. Unlike menopause in women, which is a sudden and well-defined cessation of reproductive functions, andropause occurs over an extended period and can vary significantly from man to man, which makes it difficult to detect. The symptoms of andropause can be subtle and, in many cases, overlooked as part of normal ageing. These can range from mild symptoms such as fatigue and irritability to more concerning symptoms such as decreased libido, erectile dysfunction and loss of muscle mass. It is therefore easy to see why these symptoms are often brushed off as part of the ordinary ageing process.

Symptoms of hypogonadism

Hypogonadism can adversely affect multiple organ functions and quality of life. Its symptoms can be classified into physical, sexual and psychological symptoms.

The most apparent symptoms are usually physical, due to a drop in muscle mass. As testosterone levels drop, muscle mass reduces in parallel, and this can result in symptoms that range from reduced energy levels to inability to

perform vigorous activities. Mundane activities such as working out, socialising or managing interpersonal relationships may all feel increasingly difficult. What these men once took for granted may now feel like a chore.

The effects of andropause are not just physical. Perhaps even more concerning are the psychological symptoms that accompany andropause. Low mood and decreased concentration and motivation are common among men going through this stage. The cause of this is less clear but is likely multifactorial and closely related to the changes in hormonal levels.

Additionally, andropause can affect a man's relationships, particularly in the realm of intimacy. Decreased libido and erectile dysfunction are common complaints among men experiencing this hormonal shift.

Prevalence and associations

The prevalence of late-onset hypogonadism increases with age and has been reported to be between 11.7 and 12.3 cases per 1,000 people per year.² However, the true prevalence may be higher as late-onset hypogonadism may well be an underdiagnosed condition.

While a drop in testosterone production is part of ageing, there are several co-morbidities that are associated with this drop. One such co-morbidity is obesity, which is more common in men with hypogonadism. Men with lower testosterone levels have a greater percentage of fat body mass and lower lean body mass compared to men with adequate testosterone levels.³

Hypogonadism is also frequently associated with metabolic syndrome or its related components, such as hyperglycaemia, dyslipidaemia and arterial hypertension. Erectile dysfunction is another common symptom seen in as many as 70% of patients with metabolic syndrome. Although the cause of erectile dysfunction is multifactorial, 30% of men have coexisting hypogonadism and hence may benefit from testosterone replacement.

Diagnosing andropause

Diagnosing andropause can be challenging, as the symptoms are often vague and can overlap with those of other conditions. It is essential for men to recognise that these symptoms are not part of ageing and seek professional help. Diagnosis requires signs and symptoms of hypogonadism coupled with biochemical evidence of low testosterone.

For the physician, the symptoms need to be interpreted in context with the biochemical tests as they are non-specific. This usually entails a low level of morning serum testosterone taken in the fasted state.

Importantly, care must also be taken to rule out other differential diagnoses, such as thyroid disorders, depression, drugs or sleep apnoea. A thorough evaluation ensures that the underlying causes are addressed and that treatment is appropriately tailored to the individual's needs.

Treatment and management

There is no one-size-fits-all approach to managing andropause, as each man's condition is unique. Lifestyle modifications aimed at improving overall health remain the first line of treatment. Regular physical activity – particularly strength training and cardiovascular exercise – can help mitigate the loss of muscle mass and increase energy levels.

A balanced diet rich in lean proteins and healthy fats should be advocated. Smoking cessation and reduced alcohol consumption can improve overall health as well.

Men with symptomatic hypogonadism should be offered testosterone replacement. However, care should be taken to exclude patients with contraindications such as untreated breast or prostate cancer, high hematocrit, desire for fertility or poorly controlled heart failure.

Testosterone therapy can have benefits in multiple domains, most significantly in sexual dysfunction and physical well-being. Studies have shown that testosterone therapy improves erectile function, intercourse, orgasm and overall satisfaction. These improvements can be seen as early as three months after initiation. Testosterone therapy has also been shown to increase lean muscle mass and reduce fat mass.

Patients on testosterone replacement should be followed up at regular intervals to monitor for therapeutic benefits, but more importantly, for the development of possible side effects. Testosterone levels should be monitored to ensure efficacy. Regular prostate-specific antigen and hematocrit levels should be obtained to watch for possible side effects such as development of prostate cancer and erythrocytosis.

Addressing the mental and emotional aspects of andropause is just as important as treating the physical symptoms. Psychological counselling or therapy may also be beneficial, particularly for men experiencing significant emotional distress due to the changes associated with andropause.

Social and cultural implications

In many cultures, there is a stigma surrounding discussions of male ageing and the changes that come with it.

Strength, vitality and sexual prowess are often seen as benchmarks set for men.

This societal pressure can make it difficult for men to acknowledge or seek help.

There is also a lack of awareness of the condition among the public and even within the medical community, which can further contribute to the delay in diagnosis and treatment. Breaking the silence around andropause is crucial in helping men navigate this stage of life. The

greater the awareness of this enigmatic condition, the more likely it is that men will step out and seek professional help.

Conclusion

Andropause remains an underdiagnosed condition, which has significant implications on the quality of life for men. It remains a topic of great interest with multiple studies aimed at understanding it, and better education of the public can lead to early diagnosis and early treatment. With greater awareness and understanding of the treatments available, we can truly add quality to life for men. ◆

References

- 1. Wu FCW, Tajar A, Pye SR, et al. Hypothalamicpituitary-testicular axis disruptions in older men are differentially linked to age and modifiable risk factors: the European Male Aging Study. J Clin Endocrinol Metab 2008; 93(7):2737-45.
- 2. Araujo AB, Dixon JM, Suarez EA, et al. Clinical review: Endogenous testosterone and mortality in men: a systematic review and meta-analysis. J Clin Endocrinol Metab 2011; 96(10):3007-19.
- 3. Kelly DM, Jones TH. Testosterone and obesity. Obes Rev 2015; 16(7):581-606.
- 4. Corona G, Rastrelli G, Morgentaler A, et al. Metaanalysis of Results of Testosterone Therapy on Sexual Function Based on International Index of Erectile Function Scores. Eur Urol 2017; 72(6):1000-11.

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