

What is the andropause and how can it be managed in aesthetic practice?

Just as women experience hormonal changes during the menopause, men are affected by a gradual decline in testosterone. Beverley Ashton reflects on common symptoms of the andropause and its long-term health implications. She explains why the use of biochemical blood analysis to diagnose low testosterone has been questioned and says a validated questionnaire must be used during assessment

It has been suggested that male testosterone deficiency is a growing global epidemic (Wu et al, 2008). While women's sex hormone levels drop dramatically during menopause, men also, after the age of 30 years, experience andropause symptoms due to the gradual decline in testosterone. Research suggests that men's testosterone levels have decreased significantly since the 1980s (Travison et al, 2007), with contributing factors ranging from obesity to environmental chemical exposure.

Testosterone deficiency

Many terms are used to describe a man's low levels of testosterone, including: 'male menopause', 'andropause', 'hypogonadism' and 'low T'. The Endocrine Society is seeking consensus on terminology; however, it has been agreed that 'testosterone deficiency syndrome' (TDS) accurately describes the condition and its cause (Bhasin et al, 2006).

Men's testosterone levels start to decrease after the age of 30 years and dip approximately 10% per decade. The prevalence of TDS is very complex to define, but it is projected to be 20% of men aged >50 years, which would equate to 10 000 men in the UK (Carruthers, 2009).

Common symptoms of TDS are depression, fatigue, irritability, a reduction in libido and an inability to have or maintain an erection. This is compounded by negative lifestyle choices, such as poor diet and lack of exercise, further resulting in increased fat deposits. Men with consistent low testosterone levels

often experience an increase in fatty tissues, usually in their breast and truncal area (Kapoor et al, 2005). It is now well established that fat is an active endocrine organ and more oestrogen will develop as a consequence.

The conversion of testosterone to oestrogen is the result of a process known as aromatisation, which is frequently evident in cases of high blood sugar, insulin resistance and pre-diabetes (Dias et al, 2017). It is suggested that a cascade of metabolic changes occur as men age, often described as 'metabolic syndrome' (Goel and Popa, 2018).

Diagnosis tools

Blood biochemistry is an established tool in diagnosing TDS, although total testosterone can be a marker of very limited value. As men age, not only do their bodies produce less testosterone, but also the levels of sex hormone binding globulin (SHBG), which pulls usable testosterone from the blood, begins to increase. The testosterone that is not bound to the SHBG hormone is called bioavailable testosterone, meaning it is available for use by the body. The levels of bioavailable testosterone are positively correlated to muscle strength and bone density, and negatively to body fat.


According to Carruthers (2009), blood values may not give a 'true picture'. He has been recognised for establishing the significant variance between blood values and TDS symptoms, such as loss of vitality and virility. He has set out the concept of 'testosterone resistance' to explain how the deficiency of this hormone in TDS blood levels can be in the 'normal range', but the uptake of testosterone may be resistant.

In practice, the use of a validated questionnaire (Androgen Deficiency for the Ageing Male) is also recommended to further help with the TDS diagnosis.

Treatment options

There are many testosterone preparations, some of which are made using a natural testosterone molecule and which, when processed in a regulated specialist pharmacy, become 'bioidentical'. This means that its structure is the same as the molecules produced in the body, and will react in the same way as the body's own testosterone. There are also pharmaceutical preparations with extra sidechains to make it more easily absorbed or longer-acting, but these can also have long-term side effects due to their synthetic chemical structure.

Conclusion

Male hormonal decline must be given the same recognition as the more familiar female menopause. TDS is a well-established, significant medical condition that negatively affects male sexuality, general health and quality of life. Testosterone therapy is effective and evidence-based. 

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BEVERLEY ASHTON

Aesthetic Nurse and Owner, Beechwood Aesthetics, Sunderland.
e: beechwoodaesthetics@gmail.com