

Testomalacia

Sanjay Kalra¹, Atul Dhingra², Nitin Kapoor³

Abstract

In this communication, we introduce the descriptive diagnostic term 'testomalacia'. Testomalacia may suggest softness of the testes, both anatomic and/or functional, or may suggest malaise or illness related to testosterone secretion/function. While the term is not in vogue as of now, we feel that it describes functional androgen deficiency in an apt manner. Unlike other terms used to describe these symptoms, testomalacia can be used at any age, encompasses several etiologies and is just a single term rather than multiple complicated abbreviations.

Keywords: Hypogonadism, Late Onset Hypogonadism (LOH), Male Health, Testes, Testosterone, Testosterone Deficiency

DOI: <https://doi.org/10.47391/JPMA.24-61>

Testosterone Deficiency

An increasing number of men present with symptoms of androgen deficiency, but without biochemical evidence of low testosterone levels. As their testosterone values are normal, they do not meet the diagnostic criteria of late-onset hypogonadism (LOH). However, their complaints and concerns are real, and need to be addressed.^{1,2} Moreover, at times these symptoms may present at a younger age and not fit into LOH. Furthermore, terms like LOH or ADAM (Androgen deficiency in ageing male) lack precise cut off points of what is elderly and may be subjective in clinical practice.

It must be reinforced here that testosterone deficiency is diagnosed only in the absence of other possible causes of symptoms. Most symptoms of hypogonadism, in fact, are non-specific. There are just a few complaints, such as loss of libido, that are considered sensitive markers of testosterone deficiency.

Subjective Spectrum

There is minimal correlation between biochemical androgen deficiency and clinical severity in hypogonadism. It is not uncommon to see men with low testosterone having no complaints or concerns, and others with normal values suffering from sexual inadequacy. There is no correlation between symptoms and signs, either. Men with a 'masculine' phenotype may present with symptoms of LOH- while those who are less hirsute or "macho" may be perfectly asymptomatic. One reason may be, of course, that sexual inadequacy is a couple-based, and not an individual, diagnosis.

The highly subjective nature of this field of medicine has led to calls for person-centred thresholds for diagnosis of late-onset hypogonadism.¹ Individual-based techniques and targets of treatment have also been proposed.

Terminology in Vogue

In the spirit of person-centricity and individualization, discussion and debate has continued regarding the nomenclature of androgen deficiency. Andropause, androgen deficiency in the ageing male (ADAM) and late onset hypogonadism (LOH) are some terms that are in use.^{3,4} The term functional testosterone deficiency has been used to describe men with a subnormal androgen profile but no obvious organic causes.⁵ However, this term is unable to convey the severe impact of symptoms on quality of life.

Testomalacia

We propose another term, testomalacia, to describe the clinical condition associated with symptoms of testosterone deficiency, in the presence of adequate serum testosterone levels.

The word 'malacia' suggests softness, but can also be used to connote 'malaise' or ill-being. Osteomalacia and tracheomalacia are two examples of the use of this suffix to denote a disease state. Testomalacia may be viewed, in anatomical terms, as a softening of the testes. This phenomenon is noticed in men with pre-pubertal onset of hypogonadism. Not all persons with hypo-gonadal symptoms will have soft testes, however. Some, may complain of reduction in size of testes. (after viral orchitis, for example) or others like in Klinefelter's syndrome may have firm testis. This, too may be termed as testomalacia.

Department of Endocrinology, Bharti Hospital, Karnal, India; University Center for Research & Development, Chandigarh University, Mohali, India;

²Department of Endocrinology, Bansal Gangaram Hospital, Sriganganagar, India; ³Department of Endocrinology, Diabetes and Metabolism, Christian Medical College, Vellore, India; Non-communicable disease unit, Baker Heart and Diabetes Institute, Melbourne, Victoria, Australia.

Correspondence: Sanjay Kalra. e-mail: brideknl@gmail.com

ORCID ID: 0000-0003-1308-121X

From a literary or linguistic perspective, the word testomalacia indicates illness of testes or testosterone. In fact, if there were one word that could encapsulate the feelings and frustration of men with inadequate testosterone function, it is testomalacia.

The Power of Words

Words carry immense power. A term which patients (and the public) can understand, and which conveys the possibility of cure, helps enhance awareness as well as acceptance of the disease. It also builds confidence regarding preventive and curative measures that the endocrinologist may suggest. Late onset hypogonadism (LOH) and functional androgen deficiency, while scientifically accurate, are limited by their jargonesque and logorrhoeic feeling. The word 'late' in LOH may have different connotations for different men. Andropause is understood by many middle aged men living with the condition, but is scientifically inappropriate, and may suggest an irremediable "pause" of life.

Testomalacia, on the other hand, is a simple pentasyllabic word which projects a structural as well as physiologic feeling. It begins with the prefix "testo", thus highlighting the primacy of testosterone in its pathogens. "Malacia" sounds a "medicalese" word, but does not have a threatening edge to it. In fact, non-endocrine medical and surgical professionals, familiar with the disease osteomalacia, will feel confident that this condition can be cured.

Summary

The term testomalacia lends itself to easy usage, in both clinical and colloquial contexts. We suggest that this term be defined and standardized, and be included in mainstream academics. Its usage will promote a person-centric approach to redressal of adult hypogonadism and its complications. Moreover, this term is not bound by the age of presentation, specific etiology, associated with any stigma or imply lack of treatment.

References

1. Kalra S, Jacob J, Unnikrishnan AG, Bantwal G, Sahoo A, Sahay R, et al. Expert Opinion on the Diagnosis and Management of Male Hypogonadism in India. *Internat J Endocrinol*. 2023; <https://doi.org/10.1155/2023/4408697>
2. Kalra S, Kalhan A, Dhingra A, Kapoor N. Management of late-onset hypogonadism: person-centred thresholds, targets, techniques and tools. *Journal of the Royal College of Physicians of Edinburgh.(JRCPE)* 2021; 51: 79-84.
3. Hackett G, Kirby M, Rees RW, Jones TH, Muneer A, Livingston M, et al. The British Society for Sexual Medicine guidelines on male adult testosterone deficiency, with statements for practice. *World J Mens Health*, 2023; <https://doi.org/10.5534/wjmh.221027>
4. Bhasin S, Ozimek N. Optimizing diagnostic accuracy and treatment decisions in men with testosterone deficiency. *Endocrine Practice*. 2021; 27: 1252-9.
5. Corona G, Goulis DG, Huhtaniemi I, Zitzmann M, Toppari J, Forti G, et al. European Academy of Andrology (EAA) guidelines on investigation, treatment and monitoring of functional hypogonadism in males: Endorsing organization: European Society of Endocrinology. *Andrology*. 2020; 8: 970-87.