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EDITORIAL

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The Promise and Challenges of Oral Testosterone Therapy

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In recent years, the landscape of testosterone replacement therapy (TRT) has evolved significantly, offering new hope for hypogonadal men seeking effective and convenient treatment options. The introduction of oral testosterone undecanoate (TU) marks a pivotal advancement in this field, as highlighted in the comprehensive review by Dr. Julian Borges. This editorial aims to explore the implications of these findings and the future of oral TRT in clinical practice.

Overview

The decline in testosterone production is common with age, especially after the age of 50. According to the Brazilian Society of Endocrinology and Metabolism (SBEM), the main signs of testosterone deficiency include: loss of sexual interest, difficulty in erection, insomnia, irritability, lack of concentration, hair loss, weight gain, decreased strength and muscle mass, among others. However, these symptoms can be managed with testosterone replacement therapy, a lifelong treatment, which should only be done under medical guidance. Traditionally the treatment can be administered using gels, patches, or implants placed on the skin, or through injections given once a month and now oral medications,

A New Era in Testosterone Therapy

For decades, hypogonadal men have relied on injectable and transdermal TRT options, which, while effective, often come with challenges related to administration and patient adherence. The advent of oral T offers a non-invasive alternative that could potentially transform patient experiences and outcomes. The recent publication by Dr. Julian Yin Vieira Borges in the "Series of Endocrinology, Diabetes and Metabolism" sheds new light on the evolving landscape of testosterone replacement therapy (TRT) for hypogonadal men. Dr. Borges' systematic review and meta-analysis provide robust evidence supporting the cardiovascular safety and efficacy of oral testosterone, positioning it as a viable option for many patients.

Challenges and Opportunities

Having a new oral TRT available its very promising, the widespread adoption of oral TU faces several hurdles. Awareness among both physicians and patients remains limited, we have to give attention on how those bed side physicians are making those prescribing decisions and understand what is their rational when making recommendations to patients, as evidenced by the findings presented at his recent peer reviewed published article.

Remarks:

- Patients are massively replacing their usual route of administration. Two thirds (66%) of patients taking testosterone replacement therapy (TRT) switched therapy in the last year, largely undesirable routes of administration.
- Oral TRT options like testosterone undecanoate (TU) can improve adherence and outcomes, but there is a notable gap in awareness among both patients and physicians about newer, potentially more convenient treatment options.
- Offering a safe and effective oral TRT alternative, testosterone undecanoate (TU) is absorbed through the lymphatic system, bypassing the liver's first-pass metabolism.

Safety and Efficacy: A Balanced Perspective

The review underscores the comparable safety profile of oral T to traditional TRT forms, with no significant liver toxicity and a manageable cardiovascular risk profile. These findings are crucial, as they address longstanding concerns about the safety of oral testosterone formulations. Moreover, the noted improvements in bone density and cognitive function present compelling arguments for its broader adoption. However, Dr. Borges emphasizes that besides TRT has been shown to be cariodprotective in many cases. "Continued vigilance in monitoring health parameter are always needed." he notes. "The even a slight increase in systolic blood pressure or PSA levels, while not alarming, shows the necessitaty for regular medical follow-ups to ensure maximum patient safety and optimum therapeutic outcomes", he continues.

A Step Forward

Oral testosterone therapy represents a significant step forward in the management of hypogonadism, offering a convenient and effective alternative to traditional TRT methods. As the medical community continues to explore its full potential, collaboration between researchers, clinicians, and patients will be essential in maximizing its benefits and ensuring its safe integration into clinical practice. While current evidence is promising, particularly regarding bone health and cognitive function, the cardiovascular safety aspects and long-term improved on mortality were not a surprise. Education and dissemination of information are critical to overcoming misconceptions and ensuring that patients are informed about all available treatment options. With over 22 years of clinical experience, Dr. Borges wisely calls for more long-term studies to fully understand the potential benefits and risks associated with oral testosterone therapy.

Overcomming the Limitations

Dr. Julian Borges, highlights that healthcare providers often overlook the problems that patients face. He notes that while it might seem unlikely that switching between hormone therapy products would enhance compliance, the method of administration plays a significant role. He was surprised to discover that 25% of patients do not adhere to their prescribed therapy, just because they find painfull to be injecting everytime or forget to passing their daily gels, and that 17% fail to return for follow-up appointments, they just give-up treating themselves as they find the process too difficult to manage.

Safety and Efficacy

Oral testosterone therapy offers a safety profile comparable to other traditional testosterone replacement therapies. In clinical practice, the introduction of oral testosterone therapy could revolutionize the management of hypogonadism. It offers a non-invasive, patient-friendly option that does not compromise on efficacy. We asked Dr. Borges "If oral TU is both safe and well tolerated, why aren't more people using it? The most shocking finding was the lack of physician (and patient) awareness about oral TRT — in some cases about its existence, in pther its safety profile.

"Perhaps its time to re-evaluate current treatment guideline and consider revising the current paradigms regarding the potential of oral formulations in improving patient outcomes. Many physicians did not realize that there is an safe oral preparation available. For clinicians, this means a broader arsenal of treatment strategies, allowing for more personalized and patient-centered care with no significant increase in liver toxicity or major cardiovascular events. It also shows potential benefits in improving bone mineral density, sexual functions and reducing fat mass, making it a viable treatment option for hypogonadal men.

Dr. Julian Borges, MD, holds board certifications in both Endocrinology (SBEM/AMB/CFM) and Clinical Nutrition (ABRA/AMB/CFM). He is renowned for his contributions to science and his expertise in managing complex medical conditions. As a professor of medicine and a clinical investigator, Dr. Borges significantly contributes to the field through both teaching and research. His research interests are broad and impactful, encompassing areas such as cardio-endocrinology, nutro-genomics, precision medicine, and digital health.

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