

## AB017. Challenges in the diagnosis and treatment of testosterone deficiency in men

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**Abstracts:** Testosterone deficiency (TD) profoundly affects men's quality of life. Men receiving testosterone therapy often experience resolution or improvement in their sexual symptoms and non-sexual health benefits. Although testosterone has been available since 1930s, the diagnosis and management of TD can be challenging and many controversies still exist. Clinical assessment based on symptoms and signs with a confirmatory testosterone level below normal range are required for diagnosis of TD. Screening for TD in the general population is not recommended. Screening for TD should be taken in men who report symptoms or signs associated with TD, particularly sexual dysfunctions as well as in men with obesity, type 2 diabetes, and metabolic syndrome. The International Society for Sexual Medicine recommended that symptomatic men with total T <350 ng/dL (12 nmol/L) should be treated with T therapy and a trial of T therapy in symptomatic men with total T levels >350 ng/dL can be considered based on clinical presentation. Patients who report no symptomatic improvement after at least 3 to 6 months of testosterone therapy despite adequate serum T levels should discontinue treatment.

**Keywords:** Testosterone deficiency (TD); sexual symptoms; testosterone therapy

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## AB018. Androgen receptor CAG repeat length polymorphism as a risk factor of late onset hypogonadism/metabolic syndrome in a Korean male population

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**Background:** Androgen receptor (AR) CAG polymorphism modulates the effect of testosterone in target organs. However, correlation between AR CAG repeat length and clinical features of late onset hypogonadism (LOH) is unclear and there are only few studies from Asian population. In this study, we explored the relationship of AR CAG repeat length polymorphism with LOH and metabolic syndrome (MS) in Korean male population.

**Methods:** The association between AR CAG repeat length and LOH, MS were studied in a total of 600 Korean men from 2013 to 2015. LOH was diagnosed by serum testosterone level of <3.5 ng/mL and ADAM questionnaire. AR CAG repeat length was determined by microsatellite fragment sizing. MS was diagnosed with NCEP criteria ATP III. Clinical factors and questionnaire related with LOH [patient health questionnaire-9 (PHQ), aging male symptom scale (AMS), and international index of erectile function (IIEF-5)] were analyzed with AR CAG repeat length.

**Results:** Mean age of the patients was 61.2±10.9 years and mean AR CAG repeat length was 22.2±5.1. Mean serum testosterone levels was 2.6±0.7 in men with LOH and 6.0±2.0 in men without LOH, respectively. A total of 33 men (12.5%) were diagnosed with LOH. Men with LOH showed significant longer AR CAG repeat length compared with men without LOH (26.1 vs. 21.6, P<0.001). As CAG repeat length increased, AMS total and AMS psychotic/somatic/sexual subscore increased (r=0.219, r=0.168, r=0.160, r=0.241) (P=0.001, P=0.006, P=0.001, P=0.001) and IIEF-5 score decreased, significantly (r=-0.187, P=0.002).

In multivariate analysis showed that CAG and total AMS score were independently associated with LOH. (OR =1.3, 0.9,  $P<0.001$ , 0.005, respectively) Men with MS showed significant longer AR CAG repeat length compared with men without MS (26.2 *vs.* 21.4,  $P<0.001$ ). As CAG repeat length increased, number of components of NCEP criteria increased, significantly ( $R^2 =0.119$ ,  $P=0.001$ ). AR CAG repeat length showed significant correlation with HDL ( $r=-0.244$ ,  $P<0.001$ ), triglyceride ( $r=0.276$ ,  $P<0.001$ ), HbA1c ( $r=0.201$ ,  $P<0.001$ ). In multivariate analysis, CAG repeat length, waist circumference and HDL were independent risk factors of MS.

**Conclusions:** In conclusion, AR CAG repeat length was associated with prevalence of LOH and clinical symptoms of LOH in a Korean male population. Longer CAG repeat length was identified as one of the risk factor of LOH and MS in Korean male.

**Keywords:** Androgen receptor (AR); hypogonadism syndrome; metabolic

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## AB019. Scientific advances in inflatable penile prosthesis implant design and technology for the treatment of erectile dysfunction

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**Abstract:** It is generally accepted that the development of erectile dysfunction is frequently attributed to both psychogenic factors as well as physiological alterations in

neural, vascular, hormonal and endothelial function. Despite the advent of oral and intracavernosal erectile drugs, penile prosthesis implant remains a relevant and desired treatment option as many men became refractory to medical therapy and/or seek a more effective and permanent solution. The inflatable penile prosthesis implant is considered a superior option to malleable penile prosthesis as it produces penile rigidity and flaccidity that closely replicates a normal penile erection. Since the introduction of inflatable penile prosthesis in 1972, the surgical landscape for inflatable penile prosthesis implant has changed dramatically over the years. Scientific advances in prosthesis design, device technology and surgical techniques have made penile prosthesis implant a more natural, durable and reliable device. This talk will highlight the scientific advances and technological innovation in modern inflatable penile prosthesis implants over the past 4 decades.

**Keywords:** Penile prosthesis implant; erectile dysfunction

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## AB020. Usefulness of RigiScan® evaluation of nocturnal penile tumescence

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**Background:** The RigiScan® is widely used for evaluating impairment of erectile function after traumatic events such as traffic accidents, workplace injuries, and surgical operations, and is often used in preparing diagnostic reports of erectile dysfunction, which can then be used as evidence