

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

in court cases. In Japan, the Ministry of Health, Labour and Welfare requires the use of RigiScan[®] monitoring for evaluating nocturnal penile tumescence (NPT) when assessing disability benefits for workplace accidents. We evaluated the accuracy of RigiScan[®] NPT testing for diagnosing erectile function.

Methods: A total of 46 men (age range, 17–65 years) presented at our clinic from January 2007 through October 2016 to obtain an official erectile dysfunction diagnosis certificate after physical trauma, including traffic accident, workplace accident, fall resulting in spinal cord injury, surgery for repair of slipped disks, surgery to correct rectoceles, and damage to the urinary tract during insertion of urethral catheters. The reason for seeking a diagnosis certificate varied: patients wished to use them as proof of disability after a workplace accident, for insurance-benefit application forms, as evidence in court cases, and for assessment of postoperative sequelae. These diagnostic reports usually require six tests: (I) general blood testing, including serum hormone levels; (II) psychological testing including the Cornell Medical index and Self-Rating Questionnaire for Depression; (III) esthesiometry of phallic and perineal pallesthesia; (IV) neurological testing of anal sphincter tonus and anal and bulbocavernosus reflexes; (V) intracavernous injection of prostaglandin E1 (ICI PGE₁) followed by RigiScan[®] evaluation of blood vessel response; and (VI) a 3-day RigiScan[®] evaluation of erectile function, to assess NPT while the patient is sleeping. Normal RigiScan[®] values are defined as: maximum erection hardness of 65% or greater, maximum penile circumference expansion to 3 cm or more at the base and 2 cm or more at the tip, and an erection time of 10 minutes or longer.

Results: Of the 20 patients evaluated with NPT only, 16 had normal NPT results (indicating normal erectile function) and 4 had NPT abnormalities (indicating vascular disorders and/or neuropathy). The remaining 26 men were evaluated with NPT and ICI testing: NPT and ICI were both normal in 10 (indicating normal erectile function), NPT was normal but ICI was not in 5 (classified as normal erectile function), ICI was normal but NPT was not in 4 (indicating neuropathy), and both NPT and ICI were abnormal in 7 men (indicating a vascular disorder, with or without neuropathy). How the outcomes of NPT and ICI testing were defined. Of the 26 men evaluated with both NPT and ICI testing, 5 had normal erectile function despite ICI abnormality, and another 4 had neuropathy despite normal ICI test findings. In the absence of NPT testing, diagnoses would have been based solely on ICI

results, and 9 cases (35% of the 26 cases) would have been misdiagnosed. During ICI testing, response of smooth muscle in the corpus cavernosum to PGE₁ is affected by psychological stress in the patient. Furthermore, ICI testing cannot be used to identify neuropathy.

Conclusions: When evaluating erectile function, RigiScan[®] assessment of NPT is superior to use of PGE₁ ICI alone.

Keywords: Penile tumescence; erectile dysfunction

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AB021. Management of sleep disorder in elderly patients with urological disease

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Abstract: Sleep is the body's rest cycle of 7–8 hours in healthy adult characterizing as a very complex physiological and behavioral process under a state marked by bouts of lessened consciousness, lessened movement of the skeletal muscles and slowed-down metabolism. Sleep disorder has very important effects on fatigue resolve, growth, endocrine, immune, cardiopulmonary, metabolic function, general health and eventually life-span. Prevalence of insomnia in elderly revealed as persistent insomnia in 10–15% and sleep disorder in 40–70%, which is basically accompanied with decreasing melatonin secretion as a person ages. Urological diseases related with sleep disorder are nocturia, overactive bladder, benign prostate hyperplasia, bladder & prostate cancer, cystitis, prostatitis, neurogenic bladder, urethral stricture, nocturnal polyuria, late onset hypogonadism, et cetera. Of these disorders, nocturia is one of the most bothersome self-reported insomnia in the elderly which