

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

is associated with poor quality of life. Voiding and sleep patterns should be strictly evaluated in elderly patients to define which of urological disease or sleep disorder is primitive factor. Various medical options to control voiding and/or storage symptoms with sleep disorder have chosen as monotherapy or combination therapy including alpha-blockers, anticholinergics and antidiuretic hormone for urinary symptoms as well as good sleep hygiene practice of sleep disorder and hypnotics for insomnia. Therefore, to clarify underlying disease to cause patient's chief complaint is essential resulting to maximize therapeutic results. This lecture will provide pathogenesis, diagnostic approach, ideal pharmacologic treatment with underlying action mechanism and cognitive behavior therapy in elderly with simultaneous sleep disorder and urological disease.

Keywords: Sleep disorder; elderly patients; urological disease

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AB022. New strategy for inflatable penile prosthesis reservoir placement and removal

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Abstract: Inflatable penile prostheses (IPP) have been utilized reliably as a definitive treatment for medically refractory erectile dysfunction (ED) over the last four decades. The device consists of two intra-corporal penile cylinders, a pump placed in the scrotum, and a fluid-containing reservoir. However, placement of an IPP reservoir in a patient with multiple lower abdominal/pelvic surgeries is technique challenge. The Conceal low

profile reservoir and Cloverleaf are designs to allow ectopic placement and to avoid potential bladder, bowel or vascular injury. Another rare but potentially devastating complication of IPP implantation is infection of the implant. In the event that an implant becomes infected, all components of the IPP need to be removed. Removal of reservoir has also been surgically challenging due to its location; either deep in the space of Retzius of the pelvis or high in the abdomen between the muscular fascia. This presentation will discuss new strategy for IPP reservoir placement and removal.

Keywords: Inflatable penile prostheses (IPP); erectile dysfunction (ED)

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AB023. Scrotal exploration and microsurgical vasoepididymostomy in azoospermic patients due to non-vasectomy, non-traumatic etiologies

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Background: Non-iatrogenic, non-traumatic obstructive azoospermia (OA) includes causes like congenital bilateral absence of vas deferens (CBAVD), blockage at rete testis, or obstruction distal to internal inguinal rings. The blockage could be potentially identified at scrotal exploration and corrected with microsurgical vasoepididymostomy (VE). The