

Objective: Erectile dysfunction (ED) is one of the most common complications of radical prostatectomy (RP), and seriously affecting the quality of life for patients after RP. At present, more and more doctors and patients increasingly accept and use penile rehabilitation therapies to treat ED post-RP. Among them, the vacuum erectile device (VED), a non-invasive means, can improve hypoxia within the penis and inhibit smooth muscle cell apoptosis and cavernous fibrosis. We summarize the efficacy of VED for treatment of ED after RP, and investigate patient compliance and satisfaction.

Methods: One group of 259 patients undergoing RP, including 143 cases of open RP, 116 cases of laparoscopic RP. All patients used VED (Osbon, Timm Medical, Inc.) for rehabilitation within 3 months after RP. Another group undergoing RP but not using VED was control. IIEF-5 scores, length and circumference of penis and SEP3 percentage were compared between these groups before and after RP. The compliance of VED and satisfaction for rehabilitation were also compared.

Results: The IIEF-5 score after 6 months rehabilitation was significantly higher in the patients using VED than that in the controls ($P<0.05$). The shortening of penile length and circumference after VED were also significantly lower than that of the control group ($P<0.05$). The average length using VED was 10 months (1-18 months), and IIEF-5 score and penile length and circumference were higher in those using VED more than 1 year than those using less than six months ($P<0.05$). The SEP3 and satisfaction rate were significantly higher in 172 cases undergoing neurovascular-bundle-sparing RP than controls ($P<0.05$).

Conclusions: The early use of VED rehabilitation can improve erectile function for RP patients, help to preserve the length and reduce the shrinkage of penis. Long-term use of VED can have better results.

Keywords: Erectile dysfunction (ED); radical prostatectomy (RP); vacuum erectile device (VED)

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AB033. Comparing male and female sexual arousal, utilizing fMRI: a theoretical perspective

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Background and Objective: The goal of this research was to define to mechanism of action for sexual arousal between the mind and the body for young men and women in the San Francisco Bay area. Working within the paradigm of the Sexual Response Cycle, helped to create the framework for understanding the male and female sexual response with sexual function and dysfunction at the core. The young male cohort was a group of heterosexual men who had experienced sexual function previously. The young female cohort was a group of heterosexual women who had experienced hypoactive sexual desire disorder (HSDD) previously. To review the fMRI research with male and female sexual arousal conducted at Stanford Medical Center and to propose some new research hypotheses.

Methods: Young (between the ages of 18 and 30), heterosexual, right-handed (for the sake of research consistency) men and women were recruited for this research, after obtaining IRB approval and Informed Consent. The young male study was completed within one month of initiating recruitment. The initial female study took six months and over 280 applicants to find 20 participants for the initial study. This cohort was used to define the stimuli for the women because we thought it might be different than it was for the men. The second female study took over a year to complete and included 20 young women with no history of sexual dysfunction (NHSD) as compared to 16 women with HSDD. Each group included approximately 20 participants initially, after the phone screening, completing the Informed Consent, and remaining in the 3T fMRI scanner at Stanford Medical Center to view and respond to the various stimuli as it was presented to them. The protocol called for them to receive the stimuli in various orders between relaxation, sports stimuli, and sexual stimuli. Their heart rate, respiration, sexual/genital responses were monitored with either a turgometer (male) or vaginal photoplethysomograph (VPP-female), behavioral responses, and brain activation were all correlated with the kind of stimuli they were receiving at the time.

Results: After a block analysis data assessment, the

results demonstrated the young men had sexual arousal activation: in the right subinsular region, including the claustrum, left caudate and putamen, right middle occipital/middle temporal gyri, bilateral cingulated gyrus and right sensorimotor and pre-motor regions. This was in contrast to the female results, which demonstrated more behavioral response to the erotic stimuli by the NHSD women. Additionally, women with NHSD showed more activation in the bilateral entorhinal cortex. And, women with HSDD showed more activation in the medial frontal gyrus (Brodmann Area-BA10), right inferior frontal gyrus (BA 47) and bilateral putamen. Findings were consistent across three experimental sessions. The results suggest differences between NHSD and HSDD women in encoding sexual stimuli, retrieval of past erotic experiences or both.

Conclusions: While this presentation demonstrates gender differences of sexual arousal in brain activation, clearly, there is more work to be done to define the science behind the hypotheses. Some additional hypotheses to be explored might include: comparing male and female sexual arousal with fMRI technology across the lifespan; and, with various diseases and disorders. Once the science is defined, we might be able to more effectively understand the etiology and efficacy of various treatment methods for various diseases and disorders.

Keywords: Sexual arousal; fMRI; no history of sexual dysfunction

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AB034. Application of Y chromosome microdeletions analysis in reproductive dysfunction

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Abstract: Male factor infertility often happened in patients with varicocele and genetic disorder. Microsurgical varicocele is the most effective and safe treatment option for male infertility in patients with varicocele. Y chromosome microdeletions and chromosomal abnormalities are the two types of genetic disorder. Now we could use commercial detection kits through PCR amplification of selected regions of the Y chromosome. In this report, I will introduce the application of Y chromosome microdeletions analysis in clinical reproductive dysfunction.

Keywords: Y chromosome microdeletion; male infertility

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AB035. Restoration of erectile function with intracavernous injection of endothelial or smooth muscle progenitor cells after bilateral cavernous nerve injury in rats

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Abstract: Injury to the cavernous nerve (CN) is a significant concern for patients with prostate cancer after