

( $P < 0.05$ ). ESWT can promote proliferation of endothelial cells in corpus cavernosum. The result was significantly higher in the ESWT group than in the DMED group ( $P < 0.05$ ). ESWT can improve cell metabolism in vivo. The expression of mitochondrial membrane proteins is higher in the ESWT group than in the DMED group ( $P < 0.05$ ). And the lactate concentration is higher in the ESWT group than in the DMED group ( $P < 0.05$ ).

**Conclusions:** There was a metabolic coupling between oxidative phosphorylation and anaerobic glycolysis of cells in the corpus cavernosum. And after ESWT there were a lot of lactic acid produced by anaerobic glycolysis of endothelial cells taking part in the tricarboxylic acid cycle of cells in corpus cavernosum, which could generate a great deal of energy to support growth and proliferation.

**Keywords:** Defocused low-energy shock wave; erectile dysfunction

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## AB099. Improvement of persistent detrusor overactivity after relief of bladder outlet obstruction treated by phytotherapeutic agent

Woong Jin Bae, Guan Qun Zhu, Sae Woong Choi, Hyun Cheol Jeong, Fahad Bashraheel, Su Jin Kim, Seung Hwan Jeon, Eun Bi Kwon, Sae Woong Kim

Seoul St. Mary's Hospital, Seoul, South Korea

**Background:** Many patients with benign prostatic hyperplasia need treatment for remaining storage symptoms after surgery. Therefore, we evaluated the effect of plant

combination on persistent detrusor overactivity (DO) after relief of bladder outlet obstruction (BOO).

**Methods:** Rats were assigned as three groups: control ( $n=6$ ), persistent DO ( $n=6$ ), and persistent DO treated with the plant combination ( $n=6$ ) groups. Persistent DO after relief of partial BOO was made and 6 of them were orally administered with the plant combination.

**Results:** After 4-week treatment with the plant combination, significantly reduced DO by cystometry was observed compared with persistent DO group. Moreover, oxidative stress, pro-inflammatory cytokines, and M3 muscarinic receptor were significantly increased. Additionally, significantly decreased oxidative stress, pro-inflammatory cytokines, and M3 muscarinic receptor in the bladder were observed after treatment with the plant combination.

**Conclusions:** Treatment with the plant combination improves persistent DO after relief of BOO mediated by antioxidative and anti-inflammatory effect. Further study is necessary to identify exact mechanism of treatment effect of the plant combination.

**Keywords:** Detrusor overactivity (DO); bladder outlet obstruction (BOO); phytotherapy

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## AB100. The gold standard of erectile function assessment— intracavernosal pressure detection: How to anesthetize?

Jinhong Li, Changjing Wu, Jiuhong Yuan

Department of Urology, West China Hospital, Sichuan University, Chengdu 610000, China

**Background:** Intracavernosal pressure (ICP) recording is the gold standard for the assessment of erectile function in animals, but no consensus has yet been established on what kind of anesthetic protocol should be applied. The aim of this study is to offer scientific evidence on which anesthesia protocol is more reliable for ICP recording.

**Methods:** A total of 16 adult male Sprague-Dawley rats were randomized in two groups. In group A, chloral hydrate was injected intraperitoneally. Rats in group B were induced in 5% isoflurane for 3 min and then maintained in 1.0–1.5% isoflurane. Mean arterial pressure (MAP), respiratory rate (RR) and heart rate were monitored during all experiments. After ICP detection, tail vein and carotid artery blood were collected.

**Results:** The maximum ICP value, MAP and ICP/MAP ratio in group B are significantly higher compared to group A. The RR in group A is lower than in that of group B, but the heart rate in group A is higher than the one in group

B. There are no significant differences in pO<sub>2</sub> and pCO<sub>2</sub> between two groups. While the data showed that animals in group A were relatively hypoxemic.

**Conclusions:** Isoflurane inhalation anesthesia in ICP detection could offer a relatively more stable physical state than in that under the effect of chloral hydrate intraperitoneal anesthesia. Isoflurane inhalation anesthesia in ICP detection should become a part of gold standard in animal erectile function assessment.

**Keywords:** Intracavernosal pressure (ICP); anesthesia

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