Materials and Methods: Between Jun 2013 and Dec 2014, 60 patients who were diagnosed of premature ejaculation (IELT < 1 min) with low coital frequency (≤ 2 per week), stable sexual partners, normal erectile function and without associate underlying diseases were included and were randomized divided into two groups (study and control group, 30 patients each, respectively). The patients in study group were informed to increase their weekly sexual frequency to ≥ 3. The patients in control group were taught to carry out the behavioral therapy included stop and start technique or squeeze technique. Ejaculatory latency increased more than 50% of the baseline and 30 seconds more on patients who ejaculated at the time of vaginal penetration after 3 months practice were considered to be effective.

Results: The mean ages of the study and control groups were 37.2 ± 11.9 and 36.3 ± 12.2 years, respectively. The average weekly coital frequency is similar to both groups (1.1 per week and 1.2 per week in study and control groups, respectively) before the training course. The effective rate in study and control group was 37% (11/30) and 30% (9/30), respectively (P > 0.05). Mean increased ejaculatory latency time in study group and control group was 2.6 minutes and 2.8 minutes, respectively. 5 patients in control group complained that they were difficult to reerect their penis again in short time after detumescence during the training course.

No side effects were noted in both groups.

Conclusion: Increasing coital frequency appears to provide comparable effect and lesser technique barrier to traditional behavioral therapy in patients with premature ejaculation.

PD9-4: EXPLORATION OF THE ASSOCIATION BETWEEN DIETARY INTAKE AND ENDOTHELIAL FUNCTION AMONG VASCULOGENIC ERECTILE DYSFUNCTION POPULATION

Chih-Wei Tsao 1, Yi-Shun Chen 2, Tai-Lung Cha 1, Chin-Yu Liu 2. 1 Division of Urology, Department of Surgery, Tri-Service General Hospital, National Defense Medical Center, Taipei, Taiwan; 2 Department of Nutritional Science, Fu Jen Catholic University, New Taipei, Taiwan

Purpose: The aim of present study was to evaluate the association between dietary intake and endothelial function among the erectile dysfunction males attending for clinics.

Materials and Methods: We performed a prospective study between March 2014 and June 2014 at the urology OPD in Tri-Service General Hospital. Forty-four patients were enrolled and filled out the IIEF (the international index of erectile function) questionnaire. The 24-hour dietary recall and peripheral arterial tonometry (PAT) were conducted. Augmentation index (AIx) and reactive hyperemia index (RHI%) were represented systematic arterial stiffness and endothelial-dependent vasodilation respectively.

Results: Our final results showed that vegetable intake which portions adjusted by 1000 kcal of, were negatively related to IIEF score. A negative correlation was noted between AIx and IIEF score, and the association between AIx and exchange of whole grain intake was also observed. In addition, RHI% was marked associated with intake of poly-unsaturated fatty acid.

Conclusion: Dietary intakes were related to endothelial function among ED patients, especially whole grain products and the vegetables. Detailed the mechanism of pathogenesis should be examined in future larger study.

PD9-5: BDNF-HYPERSECRETING HUMAN UMBILICAL CORD BLOOD MESENCHYAL STEM CELLS PROMOTE ERECTILE FUNCTION IN A RAT MODEL OF Cavernous Nerve Electrocautery Injury

Lujie Song 1,*, Jianqiang Zhu 1, Zhiqiang Cui 1, Yang Liu 1, Qiang Fu 1, Yue-Min Xu 1, Hongkai Lu 1, 1 Department of Urology, Shanghai Jiao Tong University Affiliated Sixth People’s Hospital, Shanghai, 200233, China; 2 Department of Urology, the Second Hospital of Tianjin Medical University, Tianjin Institute of Urology, Tianjin, 300211, China; 3 Department of Urology, Weifang Medical University Affiliated Weifang People’s Hospital, Weifang, Shandong, 261042, China

Purpose: Erectile dysfunction (ED) continues to be a significant problem for men following radical prostatectomy.

Aim: To test the hypothesis that intracavernous injection of BDNF-hypersecretating human umbilical cord blood mesenchymal stem cells (hUCB-MSCs) can ameliorate ED in a rat model of cavernous nerve electrocautery injury (CNEI).

Materials and Methods: Forty-two male Sprague-Dawley rats were randomly divided into 4 groups. Group A: Sham operation rats intracavernously injected with PBS (n = 6). Group B: CNEI rats intracavernously injected with PBS (n = 12). Group C: CNEI rats intracavernously injected with hUCB-MSCs (n = 12). Group D: CNEI rats intracavernously injected with BDNF-hUCB-MSCs (n = 12).

Main Outcome Measures: At week 4, the rats in each group underwent electrostimulation of the cavernous nerves to assess erectile function. Penile tissues were collected for histological examinations (Mason’s tri-chrome; Immunofluorescence for S-100 and α-SMA; TUNEL assay). Transmission electron microscopy (TEM) was used to examine the CN distal to the site of injury.

Results: Four weeks after injection, rats which received BDNF-hUCB-MSCs showed the most significant improvement in the ratio of maximal ICP to MAP (ICP/MAP) compared with both the CNEI+hUCB-MSCs and CNEI+PBS animals (P < 0.001). Histological examinations showed moderate recovery of S-100 positive nerve fibers, ratio of smooth muscle to collagen and smooth muscle content in the CNEI+hUCB-MSCs group and remarkable recovery in the CNEI+BDNF-hUCB-MSCs group compared to the CNEI+PBS group (P < 0.05). Furthermore, there was a significant reduction of apoptotic index in the corpus cavernosum of the CNEI+hUCB-MSCs and CNEI+BDNF-hUCB-MSCs rats compared with the CNEI+PBS animals (P < 0.05). By TEM examination, atrophy of myelinated and nonmyelinated nerve fibers was noted in CNEI+PBS group, and significant recovery was observed in two treated groups.

Conclusion: Intracavernous injection of BDNF-hypersecreturating hUCB-MSCs can enhance the recovery of erectile function, promote the CNs regeneration, protect against cells apoptosis and inhibit corpus cavernosum fibrosis after CNEI in a rat model.

Keywords: Electrocautery injury, Erectile dysfunction(ED), Radical prostatectomy(RP), Brain-derived neurotrophic factor(BDNF), Human umbilical cord blood mesenchymal stem cells (hUCB-MSCs)

PD9-6: EXPERIMENTAL RESEARCH ON THE ESTABLISHMENT AND COMPARISON OF RAT CAVERNOSUM NERVE FORCEPS CLAMPED AND ELECTROCOAGULATION INJURY MODEL

Lujie Song 1,*, Jianqiang Zhu 2, Zhiqiang Cui 1, Yang Liu 3, Qiang Fu 1, Yue-Min Xu 1, Hongkai Lu 1, 1 Department of Urology, Shanghai Jiao Tong University Affiliated Sixth People’s Hospital, Shanghai, 200233, China; 2 Department of Urology, Shanghai Jiao Tong University Affiliated Sixth People’s Hospital, Shanghai, 200233, China; 3 Department of Urology, the Second Hospital of Tianjin Medical University, Tianjin Institute of Urology, Tianjin, 300211, China; 4 Department of Urology, Weifang Medical University Affiliated Weifang People’s Hospital, Weifang, Shandong, 261042, China

Purpose: To study the mechanism of pathogenesis should be examined in future larger study.

Materials and Methods: Between Jun 2013 and Dec 2014, 60 patients who were diagnosed of premature ejaculation (IELT < 1 min) with low coital frequency (≤ 2 per week), stable sexual partners, normal erectile function and without associate underlying diseases were included and were randomized divided into two groups (study and control group, 30 patients each, respectively). The patients in study group were informed to increase their weekly sexual frequency to ≥ 3. The patients in control group were taught to carry out the behavioral therapy included stop and start technique or squeeze technique. Ejaculatory latency increased more than 50% of the baseline and 30 seconds more on patients who ejaculated at the time of vaginal penetration after 3 months practice were considered to be effective.

Results: The mean ages of the study and control groups were 37.2 ± 11.9 and 36.3 ± 12.2 years, respectively. The average weekly coital frequency is similar to both groups (1.1 per week and 1.2 per week in study and control groups, respectively) before the training course. The effective rate in study and control group was 37% (11/30) and 30% (9/30), respectively (P > 0.05). Mean increased ejaculatory latency time in study group and control group was 2.6 minutes and 2.8 minutes, respectively. 5 patients in control group complained that they were difficult to reerect their penis again in short time after detumescence during the training course.

No side effects were noted in both groups.

Conclusion: Increasing coital frequency appears to provide comparable effect and lesser technique barrier to traditional behavioral therapy in patients with premature ejaculation.