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

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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 physiological 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 MESENCHYMAL STEM CELLS PROMOTE ERECTILE FUNCTION IN A RAT MODEL OF Cavernous NERVE ELECTROCAUTERY INJURY

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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-hypersecreting 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 trichrome; 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-hypersecreting 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 Cavernous Nerve Forceps CLAMPED AND ELECTROCAUTERIZATION INJURY MODEL

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Objective: To explore the effect of different methods of injury model of cavernous nerve damage.

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 trichrome; 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-hypersecreting 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)

Podium-10
Urinary Tract Infection

PD10-1:
FACTORS ASSOCIATED WITH AND TREND OF RESISTANCE TO ANTIBIOTICS AMONG UROPATHOGENS

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Purpose: To evaluate the trend of antibiotic resistance among uropathogens from 2006 to 2015 in a tertiary care medical center in Taiwan.

Materials and Methods: We collected 2,524 specimens from urological patients with acute urinary tract infections (UTIs) from 2006 to 2015 at a tertiary care medical center in Taiwan. The Minimum Inhibitory Concentration (MIC) was measured using the disc diffusion method. The resistance rates were calculated as the percentage of positive results for each antibiotic.

Results: The resistance rates of the uropathogens increased over time. The most common uropathogens were Escherichia coli (E. coli), Klebsiella pneumoniae, and Pseudomonas aeruginosa. The resistance rates of E. coli to amoxicillin, cephalosporins, and quinolones increased significantly from 2006 to 2015. The resistance rates of K. pneumoniae to carbapenems and quinolones also increased significantly over time.

Conclusion: The resistance rates of uropathogens to antibiotics increased over time, especially for E. coli, K. pneumoniae, and P. aeruginosa. These findings highlight the need for appropriate antibiotic stewardship and the development of new antimicrobial agents.

Keywords: Antimicrobial resistance, UTI, Uropathogens