

cDNA-microarray analysis of human testicular tissues. One of novel genes, *Male Germ Cells Rab GTPase-Activating Proteins* (MgcRabGAP), which is characterized by the conserved RabGAP catalytic domain, TBC (Tre2/Bub2/Cdc16) domain. RABGAPs are involved in various physiological processes (e.g., vesicular trafficking, cytoskeletal remodeling and cell migration) through inactivating RAB proteins. Next, we have found *MgRabGAP* transcripts are mainly expressed in the mouse and human testes. And, the major of MGC-RABGAP protein is expressed in the elongating and elongated spermatids. In clinical aspect, the amounts of *MGC-RABGAP* transcript are reduced in the testicular tissues of men with various types of spermatogenic defect. The overall project is to determine the reproductive function of MGC-RABGAP and its interacted- proteins (e.g., Rabs and small G proteins) during mammalian spermiogenesis.

Materials and Methods: We applied co-immuno-precipitations (co-IP) and subjected to liquid chromatography-mass spectrometry/mass spectrometry (LC-MS/MS) to identify MGC-RABGAP interactors. The molecule-biological skills (e.g., Immunofluorescence staining, Cloning, Transfection, and Co-immunoprecipitation assay) used in this study.

Results: Several MgcRabGAP interacted-proteins have been identified through co-IP and LC-MS/MS e.g., RAB10, RAB5C, RAP1. We also verified the binding/activating ability between RAB10 and MGC-RABGAP through transfection and co-immuno-precipitation. Further, MGC-RABGAP-RAB10 complexes are co-expressed at the developmental stages of the sperm-head and tail formation.

Conclusion: MGC-RABGAP-RAB10 complexes are involved in sperm-head and tail formation at post-meiotic stages. This is first study suggesting the functional roles of MGC-RABGAP-RAB10 complexes during mouse and human spermatogenesis.

NDP081:

THE EFFECT OF SMOKING ON SEMEN QUALITY IN FERTILE MEN: A META-ANALYSIS

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Purpose: Smoking is common in all countries and affects male fertility. This meta-analysis aimed to examine the impact of smoking on the quality of sperm.

Materials and Methods: The scientific databases of Medline, PubMed, Scopus, Google scholar, Cochrane Library, and Elsevier were searched to identify relevant articles published between 1995 to 2015. In the first step, 56 articles were selected. These studies were cohort, retrospective, cross-sectional, and case control studies that were found through electronic and hand search of references about smoking and male fertility in healthy men. The outcome measurement was the differences between smokers and non-smokers in semen parameters. A total of 10 articles including 2,554 men were ultimately included in a meta-analysis to examine the impact of smoking on sperm parameters. Statistical analysis was performed using Comprehensive Meta-Analysis Ver 3. For the heterogeneity of studies, Cochran's Q test and index I^2 were used. Forest plots were calculated by Hedges's g value. Because of heterogeneity, DerSimonian and Laird random effects model was used.

Results: The Hedges's g value in ejaculation volume is -0.634 (SE: 0.185, $p = 0.001$). The 95% confidence interval (CI) is -0.996 to -0.271 . The Hedges's g value in concentration is -0.968 (SE: 0.258, $p = 0.000$). The 95% confidence interval (CI) is -1.474 to -0.462 . The Hedges's g value in mortality is -0.857 (SE: 0.083, $p = 0.000$). The 95% confidence interval (CI) is -1.019 to -0.694 . The Hedges's g value in abnormal form is 0.915 (SE: 0.123, $p = 0.000$). The 95% confidence interval (CI) is 0.674 to 1.155.

Conclusion: The results of this meta-analysis showed that smoking reduces ejaculation volume, sperm concentration, sperm motility and increased abnormal form of sperm.

NDP082:

PRELIMINARY REPORT OF THERAPEUTIC EFFICIENCY WITH FOCUSED MODE EXTRACORPOREAL SHOCK WAVE THERAPY COMBINED VACUUM ERECTILE DEVICE IN PATIENTS WITH PEYRONIE'S DISEASE

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Purpose: To evaluate the effect of focused mode Extracorporeal Shock Wave Therapy (ESWT) combined Vacuum Erectile Device (VED) for the treatment of patients with peyronie's disease (PD).

Materials and Methods: This study has enrolled two patients with a history of PD not more than 12 months who had not received any previous medical therapy or surgical intervention. As was shown in the earlier reports, the ESWT and VED treatments has been applied as the alternative conservative therapy for PD, the two patients received the new therapeutic protocol VEEST 6 weeks with focused mode Extracorporeal Shock Wave Therapy combined Vacuum Erectile Device. To analyze the efficacy of treatment by VEEST, cases were graded by IIEF-5; Numeric Rating pain Scale (NRS), and measured plaque size in cm^2 , penile curvature in degrees.

Results: At the end of new treatment course, two cases of peyronie's disease, which IIEF-5 score were significantly increased and NRS significantly decreased compared with the pre-treatment data ($P < 0.01$); Penile plaque size and angle curvature reveals the significant improvement with decreased size and reduction degree after six week VEEST therapy.

Conclusion: For patients of peyronie's disease, the new therapeutic protocol VEEST with focused mode Extracorporeal Shock Wave Therapy combined Vacuum Erectile Device can effectively treat the troublesome symptoms of PD in an relatively short therapeutic time based on the marked increase of the IIEF-5 rating score; decreased NRS scale and improved result of penile plaque size and angle curvature.

NDP083:

THE IMPACT OF PREMATURE EJACULATION ON THE PARTNERS' SEXUAL FUNCTION

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Purpose: PE is the most common male sexual dysfunction, the prevalence rates for PE in men across a broad age range are approximately 20% to 30%. The distress induced by PE affects not only the male, but also his sexual partner. The study is to evaluate the impact of premature ejaculation on the partners' sexual function.

Materials and Methods: From January of 2013 to December of 2015, 136 females who were not menopause were enrolled in the study. The case group comprised 68 women whose partner complaining of PE and the control group comprised 68 women whose partner did not fill the criteria of PE. PE was defined using the Diagnostic and Statistical Manual of Mental Disorders 4th Edition, Text Revision (DSM-IV-TR) criteria [4] for at least 6 months and an intravaginal ejaculatory latency time (IELT) of 2 min and less, measured using a stopwatch, for over 75% sexual intercourse. The Female Sexual Function Index was used to determine the female participants' sexual function. Multiple regression procedure was used to identify the impact of PE on the partner's sexual function.

Results: There was no statistically significant difference in desire, arousal and pain domain between the groups. Lubrication ($p = 0.01$), orgasm ($p = 0.002$), satisfaction ($p < 0.0001$), and total FSFI score ($p = 0.02$) were significantly lower in cases than controls. The multivariate analysis and adjusting the model for potential confounding factor, the score of orgasm domain and satisfaction domain in cases group is lower than the controls group (0.76 points, $p = 0.02$ and 1.1 points, $p = 0.0003$ respectively).

Conclusion: PE has a negative effect not only on the satisfaction but also on the orgasm of the sexual partner.

NDP084:

OPEN SUBINGUINAL VARICOCECTOMY FOR MALE INFERTILITY PATIENTS, NATIONAL TAIWAN UNIVERSITY HOSPITAL EXPERIENCE

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