

showed significant difference ($p = 0.02$) in the change between Group I and Group III or Group II and Group III.

Conclusion: There was no significant difference of semen parameters between correction of right side Grade I varicocele or not. However, the data neither showed improvement after varicocelectomy in the 2 groups. All semen parameters improved after right side Grade II varicocelectomy and the percent of motility significantly improved compared with remaining the right side Grade I varicocele uncorrected.

**PD4-6:
IMPROVEMENT OF HORMONAL PROFILE AND ERECTILE FUNCTION IN MALE RECIPIENTS AFTER LIVING DONOR LIVER TRANSPLANTATION**

You-Chiuian Chien MD¹, Yao-Li Chen MD², Heng-Chieh Chiang MD¹, Pin-Yi Lin DR². ¹Divisions of Urology, Department of Surgery, Changhua Christian Hospital, Changhua, Taiwan; ²Transplant Medicine and Surgery Research Centre, Changhua Christian Hospital, Changhua, Taiwan

Purpose: Hypogonadism and sexual dysfunction are common clinical presentation in male liver transplant candidate. The aim of the study was to evaluate the effects of living donor liver transplantation (LDLT) on testosterone, sex hormone-binding globulin (SHBG), free androgen index (FAI) and erectile function in LDLT recipient.

Materials and Methods: Male candidates for a LDLT were asked to participate in laboratory and questionnaire survey. Among the 43 eligible men, 41 (95%) completed the data collection during January 2014 to February 2015 in Changhua Christian Hospital, Changhua city, Taiwan. In the prospective study, serum levels of SHBG, and FAI of 41 male adult recipients were measured between 8 and 10 o'clock in the morning of the operation day and 1, 3 months after LDLT. The 5-item version of the International Index of Erectile Function (IIEF-5) Questionnaire was used before transplantation and six months after operation. Other clinical data were collected via chart review.

Results: SHBG level in the pre-transplant group was 68.49 35.99 nmol/L and decreased to 34.62 17.39 ($p < 0.01$) at 1 month, 44.74 23.53 ($p < 0.01$) at 3 month after LDLT. FAI in the pre-transplant group was 16.75 10.10. FAI increased to 32.75 15.56 ($p < 0.01$) at 1 month and 25.23 10.26 ($p < 0.01$) at 3 month after LDLT. The lower MELD Score (Model for End-Stage Liver Disease) was associated with worse pre-transplant testosterone level, FAI and better improvement of hormonal profile after transplant. The IIEF-5 scores significantly increased after LDLT (from 11.7 7.7 before LDLT to 14.7 7.5 after LDLT, $p < 0.01$).

Conclusion: Serum level of SHBG decreased and FAI increased after LDLT. The LDLT also results in improvement in erectile function. These data need further validation in larger trials.

**Podium-5
Oncology**

**PD5-1:
THE CLINICAL VALUE OF COGNITIVE-REGISTRATION MAGNETIC RESONANCE IMAGING TRANS-RECTAL ULTRASOUND BIOPSY IN CLINICAL PROSTATE CANCER DETECTION**

Hung-Chieh Chiu, Po-Fan Hsieh, Chi-Ping Huang, His-Chin Wu, Chao-Hsiang Chang. Department of Urology, China Medical University Hospital, Taichung, Taiwan

Purpose: The utilization of magnetic resonance imaging for target biopsy is growing gradually and it maximizes the clinical prostate cancer detection based on previous reports. The cognitive-registration MRI biopsy is the simplest, cheapest way without compromising the detection rate. The aim of our study is to compare the detection rate for prostate cancer in re-biopsy patient group between MRI cognitive-registration biopsy and conventional trans-rectal ultrasound-guided biopsy.

Materials and Methods: Patients underwent trans-rectal ultrasound biopsy from Jan. 2012 to Dec. 2014 were retrospectively reviewed. In the re-biopsy group, they were divided into Group I: MRI cognitive-registration biopsy and Group II: conventional trans-rectal ultrasound-guided biopsy. The parameter of patient's character and prostate cancer detection rate were compared.

Results: 1351 patients underwent trans-rectal ultrasound biopsy and 445 (32.42%) prostate cancer were diagnosed, while 906 patients (67.58%) remained negative for prostate cancer. 179 patients (13.25%) underwent re-biopsy owing to persist elevated PSA level. They were divided into two groups, 61 patients were enrolled in Group I: MRI cognitive-registration biopsy while 118 patients were enrolled in Group II: conventional trans-rectal ultrasound-guided biopsy. There was no significant difference between two groups in age, PSA level and biopsy burden. But the detection rate for prostate cancer is higher in MRI cognitive-registration biopsy than conventional trans-rectal ultrasound-guided biopsy. (44.26% VS 21.18%, $p = 0.001$)

Conclusion: MRI cognitive-registration biopsy increased the detection rate for prostate cancer than conventional trans-rectal ultrasound-guided biopsy. It maybe reduced the biopsy burden and associated cost, although it didn't show statistically significant difference in our study.

**PD5-2:
ESTABLISHMENT AND CHARACTERIZATION OF PRIMARY CELL CULTURE OF UROTHELIAL CARCINOMA: A PLATFORM FOR FUNCTIONAL STUDY IN CANCER**

Chin-Hsuan Hsieh, Po-Hung Lin, See-Tong Pang*, Ying-Hsu Chang, Chin-Min Chang, Chung-Yi Liu, Cheng-Keng Chuang. Division of Urology, Department of Surgery, Chang Gung Memorial Hospital, Chang Gung University, Taiwan

* Corresponding author

Purpose: It has been known that tumor heterogeneity commonly exists at both the intertumoral and intratumoral level. This kind of complexity causes the difficulties to find a solution for the disease using single modality. Here, we want to collect and create a Taiwanese urological cancer database, establish primary cell line culture from surgical specimens, and find their potential application for pharmacological therapy.

Materials and Methods: Normal and pathological tissues from urological cancers were collected immediately after the specimens were extracted. The surgical specimens were minced with sterile scissors and cultured in tissue plate. The normal tissues were also collected and stored in liquid nitrogen. In order to verify the consistency of the tumor tissue, normal tissue and derived primary cell, we used STR assay to perform this experiment. We also used phenotypical analysis to characterize the primary cell lines we have established. Besides, we established cancer xenografts from clinical materials by using mouse models for *in vivo* study of human urological carcinomas.

Results: We have successfully established the primary cell cultures from different tumor grade and tumor type. In order to characterize the primary cells we get, we used cytofluorometrical analysis to perform this experiment. All the cells stained with desmin were negative, confirming that the cultured cells were not contaminated by fibroblast or muscle tissue. In the STR assay, the results showed that almost all tissues and primary cell lines still maintained their consistency even after passaging. We also set up the patient-derived xenograft (PDX) model in the urothelial carcinomas.

Conclusion: This is a combination of basic and translation research. By setting up a good platform in urothelial carcinoma cell lines, our efforts may help us to advance our understanding of the urological cancers and develop many unique cancer cell lines for functional research in cancers.

**PD5-3:
PERIOPERATIVE AND FUNCTIONAL OUTCOMES IN PATIENTS UNDERWENT ROBOTIC-ASSISTED RADICAL PROSTATECTOMY FOLLOWING A PRIOR TRANSURETHRAL RESECTION OF PROSTATE**

Wei-Jen Chen¹, Eric Yi-Hsiu Huang^{1,2,3}, Hsiao-Jen Chung^{1,2,3}, Alex T.L. Lin^{1,2,3}, Kuang-Kuo Chen^{1,2,3}. ¹Department of Urology, Taipei Veterans General Hospital, Taipei, Taiwan; ²Department of Urology, School of Medicine, National Yang-Ming University, Taipei, Taiwan; ³Shu-Tien Urological Science Research Center, National Yang-Ming University, Taipei, Taiwan

Purpose: Retropubic radical prostatectomy (RRP) after prior transurethral resection of the prostate (TURP) was associated with increased