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Table 2 HR of all-cause mortality according to levels of eGFR in different kinds of treatment cancer patients.

	Baseline levels of eGFR (ml/min/1.73m^2)					
	≥90		60-89		<60	
	HR (95%CI)	p-value	HR (95%CI)	p-value	HR (95%CI)	p-value
Best supportive care cancer patients						
Unadjusted	Ref.		1.073 (0.852-1.352)	0.548	2.203 (1.482-3.275)	<0.001
Adjusted						
Model 1	Ref.		0.753 (0.582-0.976)	0.032	1.448 (0.940-2.228)	0.093
Model 2	Ref.		0.848 (0.644-1.117)	0.241	1.567 (0.983-2.499)	0.059
Model 3	Ref.		1.125 (0.831-1.523)	0.445	1.637 (1.022-2.621)	0.040
Single treatment cancer patients						
Chemotherapy						
Unadjusted	Ref.		1.260 (1.098-1.446)	0.001	2.546 (1.812-3.578)	<0.001
Adjusted						
Model 1	Ref.		0.985 (0.849-1.143)	0.843	1.619 (1.137-2.305)	0.008
Model 2	Ref.		1.022 (0.876-1.193)	0.779	1.586 (1.095-2.296)	0.015
Model 3	Ref.		1.117 (0.944-1.323)	0.198	1.671 (1.112-2.511)	0.014
Surgery						
Unadjusted	Ref.		1.181 (1.024-1.363)	0.023	1.350 (0.975-1.870)	0.071
Adjusted						
Model 1	Ref.		0.961 (0.820-1.127)	0.625	1.056 (0.749-1.490)	0.755
Model 2	Ref.		1.010 (0.858-1.190)	0.901	1.068 (0.743-1.536)	0.721
Model 3	Ref.		1.078 (0.912-1.274)	0.377	0.967 (0.673-1.391)	0.858
Combined treatment cancer patients						
Unadjusted	Ref.		1.529 (1.264-1.849)	<0.001	2.831 (1.781-4.500)	<0.001
Adjusted						
Model 1	Ref.		1.037 (0.845-1.272)	0.728	1.693 (1.050-2.729)	0.031
Model 2	Ref.		1.056 (0.859-1.298)	0.604	1.753 (1.083-2.836)	0.022
Model 3	Ref.		1.036 (0.837-1.283)	0.742	1.320 (0.763-2.283)	0.321

Model 1: Adjusted for age, sex.
Model 2: Model 1+ BMI, HP, CVD, DM, smoking, drinking.
Model 3: Model 2 + ALB, ALT, AST, TG, GLU, hemoglobin, CRP.

all-cause mortality (HR = 1.272; 95% CI, 1.031—1.570; p = 0.025). On subgroup analysis, for patients received surgery, combination treatment, eGFR < 60 ml/min/1.73 m^2 was not an independent risk factor for all-cause mortality, however, it was an independent risk factor for patients who received chemotherapy (HR = 1.671; 95% CI, 1.112—2.511; p = 0.014) or BSC (HR = 1.637; 95% CI, 1.022—2.621; p = 0.040).
Conclusion: RI appears frequently for patients with newly diagnosed solid cancer. eGFR < 60 ml/min/1.73 m^2 is an independent risk factor for all-cause mortality, but for patients who received different treatments, its influence on death works differently.

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Relationship Between Vascular Calcification and Oxidative Stress in the Early Stage of Chronic Kidney Disease

L. Zheng
Xiangya Hospital, Central South University, Changsha, China

Objective: Established the animal model of early stage of CKD and detection whether the vascular calcification is happened. Then investigated the relationship between vascular calcification and oxidative stress.
Methods: 6 male 10 weeks SD rats fed with chow containing 0.75% adenine, 0.25% protein, 1.06% calcium and 0.92% phosphorus. Collect the 24-hour urine and serum in weeks 0, 2, 3 and 4 to measure creatinine clearance rate. 32 male 11 weeks SD rat, collect the 24-hour urine and randomly divided into normal group, contrast feeding group, model group and treatment group. The latter two groups were fed with chow above-mentioned. Give the MnTMPyP 30 nmol per day intraperitoneally to treatment group. The other two groups were fed with standardized chow containing the same calcium and phosphorus. Make the intake of contrast feeding group same with model group. After 4 weeks, anesthetize the rats collect blood and 24-hour urine to measure serum biochemical parameters and 8-OHdG in ELISA. Collect aortas to measure Von Kossa staining and calcium content assay. Runx2, SM22α were measured in western blot.
Results: The kidney of model group and treatment group appeared as "big white kidney". The cortex tend to thin and the demarcation of medulla is unclear. The glomerulus atrophy and a lot of black crystal deposited on the renal interstitium and lymphocyte infiltrated in the interstitium. Also the creatinine increased and creatinine clearance decreased significantly ($p < 0.01$). And accord with the standard of early CKD in rats. And the hypocalcemia and hyperphosphatemia are significantly too ($p < 0.01$). 8-OHdG, calcium content and calcification increased significantly and treatment group has a downward trend. The expression of SM22α significant descreased while Runx2 is increased.
Conclusion: CKD-MBD have already occurred in early stage of CKD. Phosphorus and oxidative stress participated in the vascular calcification and the phenotype transdifferentiation of VSMCs is the principal reason in it.

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Waist-to-hip Ratio is Associated with Chronic Kidney Disease

Yan Hong Tian, Xiao Ling Zhou, Li Hua Wu, Meng Hua Chen
General Hospital of Ningxia Medical University, Yinchuan, China

Objective: To evaluate the association between the anthropometric indices of obesity and CKD and investigate the predictive value of waist-to-hip circumference on CKD.
Methods: A total of 346 participants were enrolled in this study from January 2012 to August 2014 in General Hospital of Ningxia Medical University, including 167 patients with CKD and 179 patients of healthy people as the control group. Indices of obesity included body mass index, waist circumference and waist-to-hip ratio (WHR). A multivariate logistic regression model was used to analyze the associations between CKD and its risk factors with the anthropometric indices of obesity. Receiver operating characteristic (ROC) curves make further to explore the predictive value of various indices of obesity on CKD.
Results: (1) The mean age of CKD patients (99 male and 68 female) was 38.0 ± 8.7 years while the mean age of healthy control group (92 male and 87 female) was 36.3 ± 8.5 years. (2) The significant higher level of

SBP, DBP, BMI, WC, WHR, TG, TC, LDL, BUN, Scr, UA and FBG were seen in CKD patients compared with the healthy control group, while the lower level of hemoglobin, albumin and HDL were shown in the CKD group. (3) Multivariate logistic regression model analysis showed WHR was positively correlated with CKD (OR = 9.470; 95% CI, 3.146–28.511; P < 0.001). (4) Compared to the other indices of obesity, ROC curve analysis showed WHR was the best diagnostic indicator in predicting CKD. The AUC of WHR, WC and BMI were 0.847 (95% CI, 0.804–0.890), 0.840 (95% CI, 0.799–0.882) and 0.755 (95% CI, 0.703–0.807), respectively. A cut-off value of 0.87 of WHR had a sensitivity of 76.6% and a specificity of 82.1%.
Conclusion: In the indices of obesity, WHR was an optimal predictor in predicting CKD. In addition, it is easy to use.

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Real Threat of ESRD in China: Ten-year Experience from Nanjing Three Million Insurance Covered Population

Bi-Cheng Liu[1], Yu-Chen Han[1], Han-Ming Huang[2], Ling Sun[1], Chao-Ming Tan[2], Min Gao[1], Hong Liu[1], Ri-Ning Tang[1], Yan-Li Wang[1], Xiao-Lian Zhang[1], Bei Wang[3], Kun-Ling Ma[1]
[1]*Institute of Nephrology, Zhongda Hospital, Southeast University School of Medicine, Nanjing, Jiangsu, China*
[2]*Nanjing Municipal Human Resources and Social Security Bureau, Nanjing, Jiangsu, China*
[3]*Southeast University School of Public Health, Nanjing, Jiangsu, China*

Objective: The growing burden of end-stage renal disease (ESRD) has been a great challenge to the health care system of China. However, the exact epidemiological data for ESRD in China remain unclear. We aimed to determine the real burden of ESRD in China through analyzing ten-year data of Nanjing three million insurance covered population.
Methods: Using the electronic registry system of Urban Employee Basic Medical Insurance (UEBMI), we included all subjects insured by UEBMI in Nanjing from 2005 to 2014, and we identified subjects who developed ESRD in this cohort. The prevalence, incidence, mortality rate and long-term survival rate of ESRD were analysed based on this unique data system.
Results: The UEBMI population in Nanjing increased from 1,301,882 in 2005 to 2,921,065 in 2014, among which a total of 5840 subjects developed ESRD and received RRT. Over the 10-year period, the annual incidence rates of ESRD in the UEBMI cohort in Nanjing gradually decreased from 289.3 pmp in 2005 to 218.8 pmp in 2014. However, the prevalence rate increased steadily from 891.7 pmp in 2005 to 1228.6 pmp in 2014. The annual mortality rate decreased from 138.4 per 1000 patient-years in 2005 to 97.8 per 1000 patient-years in 2014. The long-term survival rate of ESRD fluctuated over the past decade, with the 1-year survival rate ranging from 85.1% to 91.7%, the 3-year survival rate from 69.9% to 78.3% and the 5-year survival rate from 58% to 65.4%.
Conclusion: China is confronted with enormous burden of ESRD and will possess the largest population requiring RRT in the world with medical reform. Medical communities and the government should undertake active measures to control this coming crisis.

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Impact of Improvement of Cardiac Function After Cardiac Valve Surgery on Renal Outcome in Preoperative Renal Dysfunction Patients

X. J. R. Xu[1], S. B. Shen[1], L. Z. H. Liu[1], J. Z. Zou[1], L. Liu[2], C. S. Wang[2], J. Teng[1], X. Q. Ding[1]
[1]*Department of Nephrology, Zhongshan Hospital, Shanghai, China*
[2]*Department of Cardiovascular Surgery, Zhongshan Hospital, Shanghai, China*

Objective: To evaluate the impact of improvement of cardiac function after cardiac valve surgery to the renal outcome in preoperative renal dysfunction patients.
Methods: Data from patients who had preexisting renal dysfunction [serum creatinine (SCr) > 1.2 mg/dl, or eGFR ≤ 60 mL/min/1.73 m2) and received cardiac valve surgery from April 2009 to May 2011 were analyzed. △LVEF = postoperative LVEF − preoperative LVEF. Patients were grouped according to the postoperative cardiac function change as following: Cardiac function not improved (CFNI group) = △EF ≤ 0%; Cardiac function improved (CFI group) = △EF > 0%. Cardiac function significantly improved (CFSI group) = △EF ≥ 15%. Cardiac function partial improved (CFPI group) = 0% < △EF < 15%.
Results: A total of 164 patients were enrolled. Pre- and postoperative LVEF were 58 ± 11% and 59 ± 11%. Pre- and postoperative SCr were 1.7 ± 0.8 and 1.6 ± 1.1 mg/dl. The postoperative incidence of AKI was 44% (n = 72), incidence of AKI requiring replacement therapy (AKI-RRT) was 9% (n = 14). The AKI incidence in CFI group was significantly lower than in CFNI group (35% vs. 57%, P = 0.009). There was no statistical significance of AKI −RRT incidence and postoperative SCr between the two groups (5% vs. 13%, P = 0.087; 1.5 ± 0.8 vs. 1.8 ± 1.5 mg/dL, P = 0.135). The AKI incidence in CFSI group and CFPI group were both significantly lower than in CFNI group (34% vs. 57%, P < 0.05; 36% vs. 57%, P < 0.05). The postoperative SCr in CFSI group was lower than preoperative SCr in the same group (1.2 ± 0.3 vs. 1.4 ± 0.2.mg/dL, P = 0.027). Multivariate logistic regression analysis showed that improved cardiac function after surgery (OR = 0.42; 95% CI, 0.2–0.86) can reduce the risk of AKI while age (OR = 1.06; 95% CI, 1.02–1.09) was independent risk factor of AKI.
Conclusion: For patients with preoperative renal dysfunction and cardiac function improved after surgery, the AKI incidence would significantly lower than those whose cardiac function not improved and postoperative renal function is probably better than renal function before surgery.

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Sagliker Syndrome, A Disaster in Chinese Patients with Uremic Secondary Hyperparathyroidism

Guang Yang[1], Ningning Wang[1], Huijuan Mao[1], Bo Zhang[1], Bin Sun[1], Ming Zeng[1], Chun Ouyang[1], Xiangbao Yu[1], Xiaoming Zha[2], Changying Xing[1]
[1]*Department of Nephrology, First Affiliated Hospital of Nanjing Medical University, Nanjing, Jiangsu, China*
[2]*Department of General Surgery, First Affiliated Hospital of Nanjing Medical University, Nanjing, Jiangsu, China*

Objective: Sagliker Syndrome (SS), with craniofacial deformation, is a rare disease derived from uremic secondary hyperparathyroidism (SHPT). This study aims to investigate the clinical features of SS in Chinese patients.
Methods: We retrospectively assessed 9 SS patients underwent total parathyroidectomy (TPTX) with autotransplantation (AT). The other 137 common SHPT patients with the same treatment were observed as the control group. Clinical presentations, laboratory tests and follow-up data were recorded. The follow-up status was considered as "effectiveness" if serum intact parathyroid hormone (iPTH) levels were <150 pg/mL in the first 3 days after surgery, or as "recurrence" if serum iPTH gradually increased >300 pg/mL during follow-up in patients whose status was initially considered as "effectiveness".
Results: Craniofacial deformations (9/9 vs. 0/137, SS vs. control, the same below), short stature (9/9 vs. 16/137), thoracocyllosis (9/9 vs. 38/137) and spine malformations (9/9 vs. 29/137) were observed in SS patients significantly more frequently than in the control group (P < 0.05). The level of serum iPTH and alkaline phosphatase were significantly elevated in SS patients than in control. Mean iPTH levels reached up to 3242.5 pg/mL in SS and 1786.3 pg/mL in control (P < 0.05). After surgery, one SS patient died from respiratory failure, and no control group patient died. Surgery was effective in the remaining 10 SS patients with stopped craniofacial deformation and in 134/137 control group patents (P > 0.05). A mean follow-up of 16.5 (6 to 24) months was available. 6/11 SS patients and 8/137 control group patients suffered from recurrence of hyperparathyroidism originating from autografts (P < 0.05).
Conclusion: Our data suggests that SS is not only craniofacial malformations but is a severe systemic disease. TPTX with AT seems an effective treatment to relieve SHPT and to improve bone disease. SS, as a severe disease with high postoperative recurrence tendency, is sufficed to show a disaster in Chinese SHPT patients.

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