Successful Pregnancy and Labor for Women with Uremia: Report of 6 Cases with a Literature Review

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Objective: The aim of this study was to summarize and analyze the clinical manifestations for pregnant women with uremia.

Methods: Data on 6 pregnant female patients with uremia were retrospectively analyzed with literature were reviewed.

Results: Five patients of pregnancy after renal transplantation were maintained on an immunosuppressive regimen before, during, and after the pregnancy, with none developing severe complication. Their offspring had normal birth weight, postnatal growth and development. The function and survival of renal allograft was not adversely affected by pregnancy. The other one with uremia undergone hemodialysis experienced selective pregnancy terminated. Newborns delivered to the patient had low birth weight, but no congenital defects were noted and development was normal.

Conclusion: The reasonable immunosuppressive regimen, prevention and prompt therapy of complication, regular followed-up examination appears to be crucial factors for a favourable pregnancy outcome for women with uremia.

Prevalence, Treatment, and Control of Hypertension in CKD Inpatients of a Large Comprehensive Hospital in Eastern China: A Retrospective, Single-center Survey

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Objective: This study aimed to assess the situation of prevalence, treatment and control of hypertension in inpatients with chronic kidney disease.

Methods: This was a retrospective, single center study and cross-sectional clinical epidemiology study.

Results: (1) 59.8% (438/733) inpatients were diagnosed with hypertension. The average SBP of patients with hypertension was 142.03 ± 20.98 mmHg and 138.69 ± 16.49 mmHg on admission and discharge, respectively (p < 0.001). (2) 31.3% patients with hypertension were treated by one type of antihypertensive drug, and this percentage was 36.5%, 22.8% and 9.6% in patients with two, three and four or more types of antihypertensive drugs, respectively. 46.3% patients with hypertension used RASI. CCB was used in 91.6% of patients with hypertension. (3) The percentage of patients with BP < 140/90 mmHg was 49.3% on admission, and increased to 53.2% when the patients were discharged (p < 0.001). On admission, the percentages of patients with BP < 140/90 mmHg were 73.9%, 72.3%, 64.9%, 50.0% and 35.8% in patients with CKD1 to CKD5 stages, respectively. But when the patients were discharged, these percentages were 78.3%, 76.9%, 70.1%, 46.7% and 39.9% in patients with CKD1 to CKD5 stages, respectively.

Chronic Kidney Disease
Conclusion: The prevalence of hypertension in our inpatients was very high. Most of the patients with hypertension were treated by two or more types of antihypertensive drugs. The most frequently used antihypertensive drug was CCB. Less than half of the patients used RASI to treat hypertension and the control of hypertension was poor. But we improved the situation of SBP and the up-to-standard rate of blood pressure by hospitalization.

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0113 Treatment of Type 2 Diabetes Mellitus Patients with Severe Renal Impairment: A meta-analysis
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Objective: To assess the efficacy and safety of dipeptidyl peptidase-4 (DPP-4) inhibitors compared with placebo or with other hypoglycaemic drugs in patients with type 2 diabetes mellitus and severe renal impairment (RI).

Methods: A meta-analysis of RCTs was performed in adults with type 2 diabetes mellitus and severe RI, and assessed the comparative effect of DPP-4 inhibitors on HbA1C and fasting blood glucose (FPG). Safety was evaluated based on analysis of percentage of hypoglycemia, occurrence of any adverse events (AE) and any serious adverse events (SAE), the incidence of peripheral edema, urinary tract infection, diarrhea and death.

Results: Five RCTs and 503 patients were included. Compared with placebo or no treatment, DPP-4 inhibitors were associated with a larger decline in HbA1C (MD 0.15; 95% CI 0.07 to 0.23; P < 0.01) but not with FPG (MD 0.26; 95% CI 0.14 to 0.38; P = 0.06). Compared with glipizide monotherapy, no significant difference reached in HbA1C (MD 0.15; 95% CI -0.19 to 0.49; P = 0.38) and FPG (MD -0.26; 95% CI -1.16 to 0.64; P = 0.57). Similar odds of any or serious adverse events between DPP-4 inhibitors and comparators.

Conclusion: In type 2 diabetes mellitus and severe RI, treatment with DPP-4 inhibitors is safe and can effectively low HbA1C.

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0121 Impact of Atrial Fibrillation on Chronic Kidney Disease Patients
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Objective: To estimate the prevalence and the effect of abnormal renal function in newly solid cancer patients.

Methods: From January 1, 2010 to December 31, 2010, 9128 patients with newly diagnosed solid cancer in a cancer center were retrospectively studied. Renal function was calculated for each patients using Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) formula at the time of diagnosis. The prevalence of renal insufficiency (RI) and effect of RI on mortality according to different treatments in these patients were investigated.

Results: Of the total 9128 patients, 31.7% had RI (eGFR < 90 ml/min/1.73 m²), 2.9% had CKD (eGFR < 60 ml/min/1.73 m²), and 0.2% had eGFR < 30 ml/min/1.73 m². Patients with lymphoma and lung cancer have the highest prevalence of CKD (4.3%, 4.1% respectively). Of the total patients, the number of patients who received treatment of surgery, chemotherapy, combination of surgery and chemotherapy, and best support care (BSC) was 3131, 3110, 2035, 852, respectively. After multivariate analysis, eGFR < 60 ml/min/1.73 m² was found to be an Independent risk factor for all-cause mortality, cardiovascular events, and renal function decline analysis.

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0162 Prevalence and Effect of Renal Insufficiency in Newly Diagnosed Solid Cancer Patients: A Large Cohort Study with 9128 Patients from China
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Objective: Atrial fibrillation (AF) increases risk of thromboembolism events and is prevalent among chronic kidney disease (CKD) patients. However, the impact of AF on the mortality, acute coronary syndrome (ACS), and renal function decline in CKD population are rare investigated. We determined the association between incident AF and risk of death, cardiovascular events, and end-stage renal disease (ESRD) among adults with CKD using national health insurance database in Taiwan.

Methods: CKD patients enrolled in the Pre-end stage renal disease (Pre-ESRD) care management program, ≥ 18 years patients who were at least one outpatient diagnosis codes (ICD-9 codes 585, 581.9) or at least one inpatient diagnosis codes and free of any dialysis or renal transplant from Jan 1st 2007 to Dec 31th 2011 were included. CKD patients with AF were 1:5 matched to control subjects without AF by age, sex, urbanization, and socioeconomic status. Cox proportional hazards regression models were used to estimate hazard ratios (HRs) for all-cause mortality, cardiovascular events, and renal function decline analysis.

Results: We included 1995 CKD patients with AF of; these, 746 (37.4%) death, 148 (7.4%) had ACS, 222 (11.1%) had stroke or thromboembolism, and 207 (10.4%) had rapid eGFR decline. As compared with the CKD without AF subjects, those with AF was associated with multivariate-adjusted HRs of 1.64 (95% CI, 1.49–1.81) for death, 1.41 (95% CI, 1.14–1.74) for ACS, 2.15 (95% CI, 1.79–2.53) for stroke or thromboembolism, 1.50 (95% CI, 1.31–1.73) for ESRD, and 3.35 (95% CI, 2.80–4.00) for rapid eGFR decline after adjusting comorbid disorders, clinical characteristics, medications, and competing risk of mortality.

Conclusion: AF is independently associated with increased risk of developing ACS, thromboembolism, and progression to ESRD in adults with CKD.

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0162 Table 1 Multivariate analysis of different levels of eGFR associated with all-cause mortality.

<table>
<thead>
<tr>
<th>Baseline levels of eGFR (ml/min/1.73m²)</th>
<th>HR (95% CI)</th>
<th>p-value</th>
<th>HR (95% CI)</th>
<th>p-value</th>
<th>HR (95% CI)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 90</td>
<td>1.256 (1.156-1.365)</td>
<td>&lt;0.001</td>
<td>1.969 (1.630-2.379)</td>
<td>&lt;0.001</td>
<td>1.969 (1.630-2.379)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>60-89</td>
<td>0.959 (0.876-1.049)</td>
<td>0.364</td>
<td>1.361 (1.121-1.653)</td>
<td>0.002</td>
<td>1.361 (1.121-1.653)</td>
<td>0.002</td>
</tr>
<tr>
<td>&lt; 60</td>
<td>1.005 (0.945-1.073)</td>
<td>0.917</td>
<td>1.413 (1.155-1.729)</td>
<td>0.001</td>
<td>1.413 (1.155-1.729)</td>
<td>0.001</td>
</tr>
</tbody>
</table>

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.
Model 4: Model 3 + treatment (chemotherapy, surgery, combined treatment, best supportive care).