Apply Uremic Symptom score to Predict Imminent Calamitous End (AUSPICE) stage renal disease: a Pilot Study

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Background：

　　Obvious uremic symptom in a CKD patient was the best dependent way to initiate dialysis. However, uremic symptoms often been interpreted as nonspecific and unpredictable making them difficult to judge accurately and to disentangle from uremia. We try to evaluate the usefulness of uremic symptoms in clinical practice and how could it be merged with proteinuria to predict renal outcome.

Methods：

　　Total 656 CKD patients were enrolled and 154 patients lost follow up thereafter. Baseline data of Creatinine, proteinuria, eGFR were obtained in the initial CKD visiting and every three months. Ten uremic symptom items most mentioned were applied and also graded them during their out-patient visiting. Five points gradation in each item was adapted with the higher scores indicating worse status, and the sum of scores was named as AUSPICE score.

Results：

　　Total 502 patients were enrolled. Ninety-two patients entered end stage renal disease (18.2%). The AUSPICE score was significantly different between CKD groups and is well correlated with eGFR(r=-0.385, p < 0.001). Elevated AUSPICE score predicted end stage renal disease with an area under ROC curve was 0.828 (p < 0.001). Kaplan-Meier survival curve showed group with persisting higher 50% risk score (initial vs. one year later) developing worsening renal prognosis (p<0.001). Youden index of AUSPICE score for predicting adverse renal event was 18. Logistic regression disclosed odds ratios for AUSPICE ≧ 18 was 12.6 (p<0.001), and it remained significant after adjust eGFR(p<0.001). Merged AUSPICE score with proteinuria, divided by 1 and 2 g/day, elevated the hazard ratio to 32.4 (p<0.001) after adjusting traditional risk factors.

Conclusion：

　　The present data discloses the value of AUSPICE score in clinical practice. Not only well correlated with eGFR, AUSPICE score can be used simultaneously to predict future renal outcome independently.