Risk Factors and Awareness of Preventive Knowledge towards Kidney Diseases in Taiwan

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Background

\# The incidence of end stage renal disease (ESRD) has steadily increased over past 10 years in Taiwan.

\# It is an urgent need to establish our evidence-base of kidney diseases.

\# Thus, in this study we have two purposes. At first, we examine the effects of risk factors such as elder, lifestyles, other diseases on kidney diseases. Secondly, we measure preventive knowledge towards kidney diseases in general population.

Methods

\# The 2005 National Health Interview Survey was a cross- sectional population-based survey.

\# People over 15 years old in every county and city of Taiwan were randomized sampled through a multistage probability design with a response rate of 80.59％ .

\# An interviewer-administered questionnaire was surveyed in 19,552 selected samples from April 9 to July 31, 2005.

\# Self-report on kidney diseases and also other the potential risk factors, including lifestyles (alcohol consumption, cigarette smoking and exercise , hyperlipidemia, hypertension, heart disease, and diabetes were studied. The information of those diseases reported by patients, were obtained from their doctors.

\# Logistic regression analysis was used to analyze the association between risk factors and self- reported kidney diseases.

Results

\# We found an increased risk of kidney disease associated with elderly and male gender.

\# There was a significant correlation of kidney disease with smoking, but non- significant by multiple regression analysis.

\# Using stepwise selection method to establish the best model, it showed increased risk of kidney disease associated with hyperlipidemia, hypertension, heart disease and diabetes.

\# The relative risks were 2.01 (1.67-2.43, 95% C.I.) for hypertension, 1.91 (1.60-2.28, 95% C.I) for hyperlipidemia, 1.7 (1.34-2.15, 95% C.I) for heart disease, and 1.59 (1.426-2.01, 95% C.I) for diabetes, compared to normal subject adjusted for age, gender, and co-variables (all p < 0.0001).

\# Only 5.74% and 9.75% of population believed that controlling blood pressure or sugar and regular health examination can prevent kidney diseases.22.9% and 57.6% had concerns about preventing kidney diseases from taking correct medicines and avoiding over salt.

Conclusions

\# The results show elderly, male gender, subjects with hyperlipoidemia, hypertension, heart disease and diabetes are associated with increased risk of kidney diseases.

\# Many people did not know how to prevent kidney disease.

\# it is important to implement preventive interventions on these target groups.
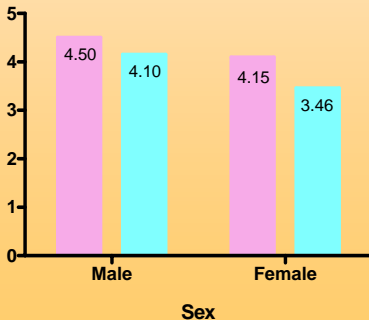
The prevalence of self-report of kidney diseases by sex in Taiwan
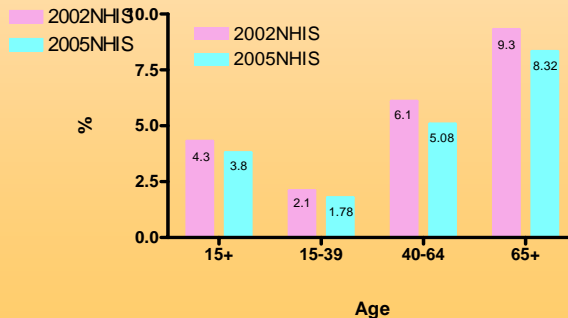
The prevalence of self-report of kidney diseases by age in Taiwan

The relationship between hypertension, hyperlipidemia, DM, heart disease wtih kidney diseases

| | kidney diseases | | OR(95%C.I.) | P-value |
	YES(%)	NO(%)		
hypertension				
yes	10.88	89.12	2.01(1.66~2.43)	<.0001
no	2.82	97.18		
hyperlipidemia				
yes	9.26	90.74	1.91(1.60~2.28)	<.0001
no	3.06	96.94		
DM				
yes	11.50	88.50	1.70(1.34~2.15)	<.0001
no	3.41	96.59		
Heart disease				
yes	11.40	88.60	1.59(1.26~2.01)	<.0001
no	3.42	96.58		

\# Multivariate logistic regression adjusted for age, gender, and co-variables.

Preventive knowledge towards kidney diseases in general population.