PUK2

PREVALENT AND ASSOCIATED COMPLICATION OF ACUTE KIDNEY INJURY AMONG DENGUE PATIENTS

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OBJECTIVES: Dengue fever is a mosquito borne infectious disease that is mainly prevalent in tropical and subtropical zones of the world. One of the potential complications of dengue fever is acute kidney injury (AKI). Current study aims to assess the incidence and risk factors for AKI among dengue patients. METHODS: A retrospective review of medical records of dengue infected patients enrolled from May 2005 to December 2013 was conducted at a tertiary care hospital in Kelantan. RESULTS: 124 patient records (male: 63, female: 61) with mean age of 29.57 ± 15.09 were reviewed retrospectively. Out of 124 patients, 104 (83.9%) suffered with classical DF, 19 (15.3%) with dengue hemorrhagic fever (DHF) while only 10.8% with Dengue shock syndrome (DSS). The prevalence of AKI among Dengue patients was found to be 7.2 ± 9 (9 patients). On the basis of Acute Kidney Injury Network (AKIN) criteria, 2(22%) had stage 1 AKI while remaining 7 (78%) had stage 2 AKI. For the purpose of analysis of risk factors for AKI, patients were categorized into group I (with AKI) and group II (without AKI). Mann Whitney “U” test was used to compare differences between groups. A higher serum creatinine (112.39 vs 56.87; p:0.001), bilirubin (70.81 vs. 48.73; p:0.038), urea (104.50 vs. 58.08; p:0.001), WBC (92.25 vs. 59.90; p:0.013) and HB (90.91 vs. 60.04; p:0.021) levels were observed among AKI dengue patients. Though the duration of hospital stay of group I was more than group II, but this difference was statistically insignificant (t=7.73, II= 61.34; p:0.192). CONCLUSIONS: AKI is a least studied and poorly understood complication of dengue fever. Such patients are at verge of developing DHS/DSS resulting in complicated clinical course and increased mortality. A cautious diagnosis and timely management should be done to reduce and manage the complications of such patients.

PUK3

EPILOGUE OF END STAGE RENAL DISEASE PATIENTS ON HEMODIALYSIS FOR TREATMENT OF DIABETIC KIDNEY DISEASE

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OBJECTIVES: To investigate the effect of forskolin, on susceptibility/severity of acute pyelonephritis and innate immune responses to pathogen using an established experimental model involving ascending urinary tract infection and production of pro-inflammatory cytokine (e.g. IL-1β, TNF-α, IL-6) as well as in renal myeloperoxidase (MPO) activity. In vitro, forskolin inhibited LPS or UPEC mediated pro-inflammatory cytokine and chemokine production by primary renal tubular epithelial cells/macrophages. METHODS: Conclusions: These findings demonstrate that administration of forskolin is beneficial for controlling the development of UPEC mediated acute pyelonephritis in mice. The protective effect of forskolin (via cAMPactivation) in this experimental acute pyelonephritis can be explained at least in part by limiting excessive inflammatory responses through acting on both renal parenchymal and inflammatory cells.

PUK6

C5A RECEPTOR ANTAGONIST PROTECTS MICE FROM UROPATHOGENIC ESCHERICHIA COLI-INDUCED KIDNEY INFECTION

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OBJECTIVES: To determine if blocking C5aR could effectively protect mice from UPEC induced acute pyelonephritis. Experimental validation of the established mouse model of ascending UTI leading to kidney infection was employed. C5aR antagonist (C5aRa, W54011) (250mg/kg) was given before the infection of i.p. injection. Kidney infection was assessed in C5aRa or control reagent treated mice at 6, 24, 72h after infection. These findings demonstrate that C5aR blockade is associated with tadalafil use in BPH indication. (registration number: CRD42014007248) aims to provide the evidence for the AE management of such patients.

PUK7

BUDGET IMPACT ANALYSIS OF PERITONEAL DIALYSIS VERSUS CONVENTIONAL IN-CENTER HEMODIALYSIS IN MALAYSIA

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OBJECTIVES: The increasing prevalence of patients with end-stage renal disease in Malaysia is driving up the costs of dialysis care dramatically. Several studies have projected significant cost savings by increasing the proportion of patients on peritoneal dialysis (PD). This study investigates the five-year health care budget impact of variable distribution of adult patients treated with PD and in-center hemodialysis (ICHD) on government funding in Malaysia. METHODS: An Excel®-based budget impact model was constructed to assess dialysis-associated costs when changing dialysis modalities between PD and ICHD. The model incorporates the current modality distribution and accounts for Malaysian government- funded treatments. The economic model calculates an annual budget deficit, includes direct medical costs, prevalence, incidence, mortality, and transplant rate from Malaysian renal registry reports, which were used to estimate the dialysis patient population for the next five years. The outcomes were then compared to the current modality distribution (84% PD, 16% ICHD) over five years. Alternative scenarios assumed a decrease in the PD/ICHD ratio of 2.5%, 5.0%, and 7.5% or decreased 1% yearly over five years. All four scenarios were accompanied with commensurate changes in ICHD. RESULTS: Under the current best available cost information, an increase in the prevalent PD population from 8% in 2014 to 18%, 28%, or 38% in 2018 is predicted to result in five-year cumulative savings for the Malaysian government of RM13.9 million, RM27.9 million, and RM41.96 million, respectively. If the prevalent PD population were to decrease from 8% in 2014 to 4% by 2018, the total expenditure for dialysis treatments would increase by RM5.6 million over the next five years. CONCLUSIONS: Under the best available cost information associated with PD and HD paid by the Malaysian government, increasing the proportion of patients on PD could result in reduction in dialysis-associated costs in the future.

PUK8

FINANCIAL IMPLICATIONS TO TAIWAN HEALTH SYSTEM FROM CHANGING THE DIALYSIS MODALITY MIX

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OBJECTIVES: In 2012, 0.3% of Taiwan end-stage renal disease (ESRD) patients were treated with PD. This 6.64% of National Health Insurance (NHI) dialysis spending. We investigated the five-year financial impact of changing the distribution of patients undergoing peritoneal dialysis (PD) and in-center hemodialysis (ICHD). METHODS: Two back-cast budget impact models was constructed to assess dialysis-associated costs. The model incorporates Taiwan current modality distribution and accounts for ESRD outpatient and inpatient total health care cost. Epidemiological data of ESRD patients from 2000 to 2011 was acquired from Taiwan Healthcare Corporation (NHRB) Databases for 2008. The baseline scenario assumed a stable distribution of PD (10%) and ICHD (90%) over five years. Four scenarios, inclu-