THE EFFECT OF PREVENTION USING DRUG THERAPY ON KIDNEY STONE PU5K

Tu5K: RANITIDINE AND OMEPRAZOLE EFFECT ON SERUM PHOSPHOROUS IN HEMODIALYSIS PATIENTS

Eloby D1, El-hamamy M2, El- shardawy M2
1MSA University, Cairo, Egypt, 2Ain Shams University, Cairo, Egypt

OBJECTIVES: To evaluate the effect of Ranitidine and Omeprazole in combination with CaCo3 (as a phosphate binder) versus phosphate binders alone on the serum phosphorus level (PO4) in patients performing renal dialysis
METHODS: Subjects were at National Institute of Urology and Nephrology (N.I.U.N) and Ain Shams University Specialized Hospital (A.S.U.S.H) Cairo, Egypt. They were classified into three groups (8 subjects) served as control group and in which they received CaCo3 alone. Group II (39 subjects) administered CaCo3 (2 gm-12 gm three times daily) with Ranitidine (150mg twice daily). Group III (31 subjects) received the same dose of CaCo3 with Omeprazole (20 mg once daily). Blood samples were collected for 5 months and from the months during the hemodialysis sessions. Data obtained revealed that patients in group II showed marked increase in serum (PO4) level at 4th, 5th and 6th months with significant increase in Calcium- Phosphorus product (CaXp). Significant decrease in serum level of Ca and Alkaline phosphatase (ALP). No significant change in serum PTH level. While in group III, the results show no significant change in serum level of Ca, PO4, PTH, and (CaXp) value.

CONCLUSIONS: Ranitidine co-administration with CaCo3 may aggravate hyperphosphatemia. Omeprazole co-administration with CaCo3 may have a beneficial role in minimizing complications in those patients.

PU6K THE EFFECT OF PREVENTION USING DRUG THERAPY ON KIDNEY STONE RECURRENTITY AFTER MINIMALLY INVASIVE SURGERY IN KASERNE PERMANENTE SOUTHERN CALIFORNIA (KPSG)

Lee H1, Chen MW1, Chang KC2, McCombs J3, Niu F3
1Kaiser Permanente, Downey, CA, USA, 2Southern California Permanente Medical Group, Downey, CA, USA, 3University of Southern California, Los Angeles, CA, USA

OBJECTIVES: Surgical intervention (extracorporeal shockwave lithotripsy (ESWL), ureteroscopic lithotripsy (URSL), or staged intervention) is necessary when the likelihood of spontaneous passage of kidney stones is low or complications arise. Secondary prevention can involve drug therapy with allopurinol, thiazides, or potassium citrate, as well as metabolic evaluation to guide drug therapy. Our objective is to evaluate the impact of drug therapy in lowering the risk of kidney stone recurrence.

METHODS: This retrospective cohort study was conducted in Kaiser Permanente Southern California. Adult patients with a diagnosis of kidney stones and who underwent surgery between July 1, 2006 and June 30, 2008 were selected. Patients were excluded if they had a prior kidney stone surgury (index) date without evidence of previous surgery. Patients were followed until they experienced a recurrence of kidney stones, dis-enrolled from the health plan, death, or the end of study's data period. A cox proportional hazards model was utilized to estimate the effect of drug therapy on kidney stone recurrence, controlling for other risk factors and the use of metabolic evaluation.

RESULTS: A total of 2881 patients met inclusion criteria. Only 1159 (40.2%) patients received drug therapy for other risk factors and the use of metabolic evaluation.

CONCLUSIONS: Drug therapy with allopurinol, thiazides, or potassium citrate, as well as metabolic evaluation to guide drug therapy should be undertaken to confirm these results.

PU7K SAFETY OF ERYTHROPOIESIS-STIMULATING AGENTS IN PEDIATRIC PATIENTS WITH END STAGE RENAL DISEASE

Cavanaugh T1, Bian B1, Berry EA1, Kelton CM2
1University of Cincinnati, Cincinnati, OH, USA, 2University of Cincinnati College of Business, Cincinnati, OH, USA

OBJECTIVES: Erythropoiesis-stimulating agents (ESA) are used in patients who develop anemia secondary to end-stage renal disease (ESRD). Increase in incidence of thrombosis and death in adult ESRD patients resulted in a warning by the FDA to adjust ESA doses to maintain target hemoglobin of <12 g/dL. Children with ESRD also develop anemia that ESAs are used to treat. The objective of this study was to determine cardiovascular outcomes associated with ESA use in pediatric ESRD patients.

METHODS: This is a retrospective study using the USRDS database from 2004-2008. Children 0-19 years old with a diagnosis of anemia (hemoglobin <5% for age and sex) were included. Patients with evidence of ESA administration prior to diagnosis were excluded. Patients were stratified into those treated with ESA or no-ESA. Cardiovascular events (ischemic heart disease, stroke, and embolism) were identified using ICD-9 codes. Logistic regression with cardiovascular event as the dependent variable was undertaken. Covariates included diabetes, hypertension and hypercholesterolemia.

RESULTS: Of 2,138,876 patients, 3,224 met the inclusion criteria, 1,302 with ESA and 1,924 without. The mean age at time of anemia diagnosis was 14.8 years and 14.0 years in the ESA and no-ESA groups, respectively. A cardiovascular event occurred in 277 patients in the ESA group versus 37 patients in the no-ESA group. In the regression model, odds ratios for cardiovascular event were 6.71 (95% CI 4.62-9.73) for ESA therapy and 4.27 (95% CI 3.17-5.70) for patients with hypertension.

CONCLUSIONS: ESA therapy in pediatric ESRD patients appears to increase risk of a cardiovascular event in pediatric ESRD patients. Further study should be undertaken to confirm these results.

PU8K NOCTURIA AND THE RISK OF FALLS, FRACTURES, AND SLEEP DISTURBANCE: A SYSTEMATIC REVIEW AND META-ANALYSIS

Thau K1, Globé D5, Malone D5
1University of Arizona, Tucson, AZ, USA, 2Alliancy, Inc., Irvine, CA, USA

OBJECTIVES: To assess the strength of association between nocturia and falls, fractures, and sleep disturbance in the published literature

METHODS: A meta-analysis was conducted based on a search of PubMed and EMBASE from inception to October 2011. Studies were included if they reported risk of fall, fractures, or sleep disturbance in relation to nocturia status and were in the English language. Data was collected using a standardized data collection instrument. The pooled odds ratio (OR) was calculated using a random-effects model. A qualitative synthesis was conducted in regards to the impact nocturia has on sleep.

RESULTS: Forty-four studies examined the relationship between nocturia and sleep. Eleven studies were excluded due to the effect modification that sleep disorders have on nocturia. Other reasons for exclusion included 11 articles due to irrelevant events including both dry mouth and constipation. CONCLUSIONS: Solifenacin appears to be more efficacious than trosipium (IR and ER) in ameliorating the symptoms associated with overactive bladder syndrome but shows no statistically significant differences in common safety and tolerability issues.