Supplementary Material

Methodology:

The proposed definition for Adult Renal Angina Index included serum creatinine and urine output. RAI was used in previous studies with children. RAI in our study was used with a minor modification i.e. addition of diabetes mellitus as a co-morbid condition. This was adapted from an Asian study cohort in countries from Japan and Thailand. The RAI score was defined as the worst condition score multiplied by the creatinine score and consisted of 1, 2, 3, 4, 6, 8, 10, 12, 24, and 408. We used renal angina index more than 8 was used as cut off for prediction of severe AKI based on study by basu et al.

A prospective observational study conducted over 12 months from 1/6/2018 to 1/6/2019 at a tertiary care hospital ICU at Chennai. Adults (age >18) of either gender who are admitted in intensive care unit with stage 1 AKIN has been included in the study. (Definition of increase in serum creatinine greater than 0.3 mg/dl or urine output less than 0.5ml/kg/h for more than six hours). Those patients with CKD stage V (End Stage Renal Disease), severe AKI present on ICU admission, i.e stage 2/3 on AKIN Criteria and ICU stay less than 48 hours were excluded from the study. Serum creatinine was checked daily and severe AKI defined by AKIN stage 2 and 3 was assessed after 3 days. Early rise in creatinine was defined as changes of serum creatinine within 24 hours.

Objectives:

1. To assess the association of Renal angina index with severe AKI, requirement of RRT and mortality

2. To find out the cut off values of the RAI to predict the above

Statistical analysis:

The presentation of the Categorical variables was done in the form of number and percentage (%). On the other hand, the quantitative data were presented as the means ± SD and as median with 25th and 75th percentiles (interquartile range). The data normality was checked by using Shapiro-Wilk test. The cases in which the data was not normal, we used non parametric tests. The following statistical tests were applied for the results:

1. The association of the variables which were quantitative and not normally distributed in nature were analysed using Mann-Whitney Test (for two groups) and variables which were quantitative and normally distributed in nature were analysed using Independent t test.

2. The association of the variables which were qualitative in nature were analysed using Chi-Square test. If any cell had an expected value of less than 5 then Fisher's exact test was used.

3. Receiver operating characteristic curve was used to assess cut off point, sensitivity, specificity, positive predictive value and negative predictive value of renal angina index for predicting severe AKI, requirement of renal replacement therapy, mortality and early creatinine elevation.

The data entry was done in the Microsoft EXCEL spreadsheet and the final analysis was done with the use of Statistical Package for Social Sciences (SPSS) software, IBM manufacturer, Chicago, USA, ver 25.0.

For statistical significance, p value of less than 0.05 was considered statistically significant.