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Osmolaridad e Injuria Renal Aguda en la Unidad de Cuidado Intensivo

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RESUMEN

Antecedentes: La osmolaridad de una solución está dada por la cantidad de partículas de soluto por litro de agua. Los principales osmoles del líquido extracelular son las sales de sodio, la glucosa y la urea; a partir de los cuales se obtienen los determinantes para el cálculo de la osmolaridad plasmática.

Objetivo: Evaluar el comportamiento de la Osmolaridad en pacientes que desarrollan Injuria Renal Aguda (AKI) en la Unidad de Cuidad Intensivo.

Metodología: Se realizó un estudio analítico longitudinal del comportamiento de la Osmolaridad en los pacientes que desarrollan AKI. Para ello se registraron los valores del Sexo, Creatinina y Urea en Sangre, los demás metabolitos fueron medidos en Orina (Sodio, Potasio, Cloro, Nitrógeno, Glucosa y Osmolaridad). Se realizó estadística descriptiva a las variables, la comparación entre los pacientes que hicieron AKI y los que No se realizó mediante un test de Students y la relación de la Creatinina y la Osmolaridad se realizó con un modelo de regresión simple.

Resultados: Se evaluaron 116, con un promedio de edad de 51±19años, El 18% de los pacientes hicieron AKI. La relación entre la CrSr y la Osmolaridad (R^2: 0,294; p-valor: 0.0423; Modelo ajustado: Cuadrado de X) evidenció que realizando un

ajuste a la distribución de los datos permite hacer comparaciones de los otros niveles de otras varían.

Conclusión: Al haber una asociación significativa entre la Creatinina Sérica con la Osmolaridad esta se posiciona como un marcador pronostico renal, ya que la creatinina no solo es indicador de función renal sino de otros fenómenos lo cuales podría hacer que esta se elevara por causas no renales, mientras que la Osmolaridad Urinaria depende exclusivamente de la capacidad del riñón para concentrar la orina.

Palabras Clave: Osmolaridad urinaria, Injuria renal aguda, Unidad de Cuidad Intensivo.

ABSTRACT

Background: The osmolarity of a solution is given by the amount of solute particles per liter of water. The main osmoles of the extracellular fluid are sodium salts, glucose and urea; from which the determinants for the calculation of plasma osmolarity are obtained.

Objective: To evaluate the behavior of Osmolarity in patients who develop Acute Renal Injury (AKI) in the Intensive Care Unit.

Methodology: A longitudinal analytical study of the behavior of Osmolarity was carried out in patients who develop AKI. For this, the values of Sex, Creatinine and Urea in Blood were recorded, the other metabolites were measured in Urine (Sodium, Potassium, Chlorine, Nitrogen, Glucose and Osmolarity). Descriptive statistics were performed on the variables, the comparison between the patients who did AKI and those who did not was made by means of a Students' test and the relationship between Creatinine and Osmolarity was carried out with a simple regression model.

Results: 116 were evaluated, with an average age of 51 ± 19 years. 18% of the patients did AKI. The relationship between CrSr and Osmolarity (R^2: 0.294; p-value: 0.0423; Adjusted model: Square of X) showed that making an adjustment to the distribution of the data allows making comparisons of the other levels of others vary.

Conclusion: As there is a significant association between Serum Creatinine and Osmolarity, this is positioned as a renal prognostic marker, since creatinine is not only an indicator of renal function but of other phenomena, which could cause it to rise due to non-renal causes. , while Urinary Osmolarity depends exclusively on the kidney's ability to concentrate urine.

Key words: Urinary osmolarity, Acute kidney injury, Intensive Care Unit.

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