

Study: Radiocontrast - AKI Risk Lower Than Previously Thought

Acute Kidney Injury

According to a study published in the *Journal of the American Society of Nephrology*, radiocontrast administration may have a lower risk of kidney damage than previously thought. The findings suggest that the potential benefits of radiocontrast-enhanced imaging are far greater than its hazards, which could have been overestimated by researchers and physicians.

Radiocontrast administration has been thought to contribute to acute kidney injury (AKI). However, there is little agreement in the literature regarding radiocontrast-associated neuropathy (CAN). Furthermore, studies estimating CAN incidence suffer from misclassification of the cause of AKI as well as methodological bias.

In order to provide a more accurate picture of the incidence of CAN, E. Wilhelm-Leen, MD, M. Montez-Rath Glenn, PhD and G. Chertow, MD, MPH, Stanford University School of Medicine, analysed data provided in the Nationwide Inpatient Sample, the largest publicly available all-payer inpatient care database in the United States. After restricting their samples to hospitalisations for patients older than 18 years with hospital stay of 10 days or fewer, the researchers were left with nearly 6 million patients hospitalised in 2009.

The patients were then stratified according to the presence and absence of 12 medical conditions commonly associated with AKI and the rate of AKI was evaluated among strata. The researchers also created a model controlling for co-morbidity and acuity of illness to estimate the risk of AKI associated with radiocontrast administration.

The results showed that AKI developed in 5.5% of patients who had received radiocontrast administration and 5.6% of patients who had not. For some conditions, radiocontrast administration was associated with a higher risk of AKI, but differences between groups were small. The only exception was acute pancreatitis, which was associated with a doubling of the risk of AKI. Unexpectedly, for several other conditions, such as endocarditis and stroke/CVA, radiocontrast administration was found to be associated with a lower risk of AKI.

Source: American Society of Nephrology

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