ACUTE KIDNEY INJURY. CLINICAL - 2

MP220 ACUTE KIDNEY INJURY AMONGST THE ELDERLY: DOES FRAILTY AFFECT OUTCOME IN AKI?

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Introduction and Aims: Under recognition and deficiencies in the management of acute kidney injury (AKI) contribute to an increase in mortality in patients admitted to hospital. Epidemiological studies have demonstrated that the rate of AKI amongst patients over 65 years of age in the UK is on the increase. This is partly accounted for by the UK’s aging population, but it is also a reflection of the enhanced diagnostic tools for AKI. However despite this, AKI amongst the over 65 years of age remains under recognised and poorly managed. AIMS: This is a prospective study of unselected acute medical admissions to a district general hospital. The study was designed to evaluate the relationship between frailty and AKI under recognition and adverse outcomes in the elderly. This was done through applying a validated frailty scoring tool to the study cohort and correlating this with AKI severity and outcome.

Methods: Demographic data of acute medical admissions to a district general hospital were collected over a 6 months period. For the purpose of this study the data for 886 patients over 65 years of age were collated and analysed. Baseline serum creatinine, 48 hours serum creatinine, and peak serum creatinine were collected for each patient. Urine output measurements data were also collected for the first 72 hours post admission. Multivariate analysis was undertaken to determine risk factors for AKI and adverse outcomes. AKI was classified according to the Kidney Disease Improving Global Outcome (KDIGO) AKI Classification. At admission, patients were given a frailty score using the validated Frail Non-Disabled questionnaire (FiND). A further analysis was undertaken to assess the correlation between the FiND frailty score and AKI severity, and the effect of this on mortality and length of hospital stay.

Results: AKI incidence on admission was 20.9%. All-cause mortality was 4-fold higher amongst patients over 65 years of age in those presenting with AKI compared to without (P < 0.001). Increasing age, previous kidney disease, diabetes, hypertension and recent nephrotoxic medication use within 4 weeks of admission date were found to be independent risk factors for AKI. 42% of patients with AKI did not undergo repeat serum creatinine measurements as recommended. 87% did not have accurate urine output measurement documentation. The FiND frailty assessment tool scores positively correlated with worse AKI severity and a higher rate of adverse outcome.

Conclusions: AKI in the elderly admitted to hospital remains under recognised and poorly managed. Frailty is an independent risk factor that adversely affected mortality and length of hospital stay in AKI patients over 65 years of age. This study highlighted the importance of early recognition of small rises in serum creatinine and monitoring this during hospitalisation. By incorporating the FiND frailty tool in the clinical assessment, we aim to improve AKI management in this age group in-line with current national guidelines.