

Study of patients with acute kidney injury in tertiary rural hospital

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ABSTRACT

Introduction: Acute Renal Failure (ARF) refers to a damage that has already occurred and does not leave any capacity for early detection of “injury” or intervention, to prevent failure. The term ARF was replaced by AKI to provide uniform definition, classification and standardize patient care.

Objectives: The aim was to study etiology and outcome of patients with AKI, to study association of AKI with other diseases with and utility of pRIFLE and AKIN as prognostic indicators.

Material & Methods: Patients aged one month to 17 years admitted to pediatric intensive care unit were included in the study; patients with known chronic kidney disease & congenital anomaly were excluded.

Result: The commonest etiology for patients with AKI was sepsis 15 (30%) of which 5(33.3%) patients had pneumonia. Overall Outcome of patients was 26 (52%) discharged, 12 (24%) tookDAMA, 8(16%) referred,4(8%) expired.

Conclusion: Commonest cause for AKI was sepsis, next to it was acute tropical illness. Perhaps good control on vector borne disease may significantly reduce burden of AKI.

Keywords: Etiology, Kidney injury, Outcome, Pediatric, Staging

INTRODUCTION

“Acute Renal Failure (ARF)” refers to a damage that has already occurred and does not leave any capacity for early detection of “injury” or intervention, to prevent failure, hence the term ARF was replaced by AKI to provide uniform definition and classification and standardize patient care.^{1,2}

AKI may now be defined objectively by the criteria proposed by the AKIN¹ (Acute Kidney Injury Network) as an abrupt (within 48 hours) reduction in kidney function, involving:

- an absolute increase in serum creatinine > 0.3

mg/dL from baseline OR

- an increase in serum creatinine > 50%(1.5-fold from baseline) OR
- a reduction in urine output < 0.5 mL/kg/hr for more than 6 hours).

The RIFLE criteria for Acute Kidney Injury (AKI) were proposed by the Acute Dialysis Quality Initiative (ADQI) Group² in 2004 and modified for pediatric use (pRIFLE)³ (pediatric Risk, Injury, Failure, Loss, End stage) in 2007. The etiology of AKI over past decades has shifted from primary renal disease to multifactorial causes like neonatal hypoxic ischemic injury, post cardiac surgery, increasing use of nephrotoxic agents,

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