



A STUDY OF ACUTE KIDNEY INJURY WITH VARIED ETIOLOGIES IN INTENSIVE CARE UNIT

KEYWORDS

acute kidney injury, ICU

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ABSTRACT Acute kidney injury is a common clinical condition encountered in our hospital. This study is an attempt to evaluate acute kidney injury in 50 patients admitted in ICU with respect to varied aetiologies.

INTRODUCTION

Acute renal failure (ARF) is a syndrome characterized by rapid (hours to weeks) decline in glomerular filtration rate (GFR) and retention of nitrogenous waste products such as blood urea nitrogen (BUN) and creatinine and perturbation of extra cellular fluid volume and electrolyte and acid base homeostasis.^{1,2} The kidney being relatively unique among the organs of the body in its ability to recover from almost complete loss of function. ARF is usually asymptomatic and diagnosed when biochemical monitoring of hospitalized patients reveal a recent increase in blood urea and creatinine concentration.

MATERIALS AND METHODS

This is a study of patients with acute renal failure admitted in Intensive Care Unit at Alluri Sita Ramaraju Academy of Medical Sciences between October 2015 to September 2016.

Selection Criteria:

A. Inclusion Criteria:

All inpatients with clinical and / or biochemical evidence of acute renal failure.

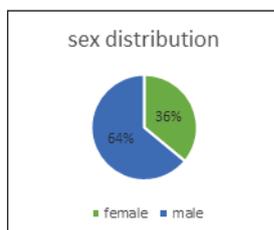
B. Exclusion Criteria:

Patients with pre-existing chronic renal failure or chronic renal disease. Patients aged below 14 years.

RESULTS AND ANALYSIS

A total number of 50 cases of acute renal failure patients, admitted to ICU at ASRAM who met the inclusion criteria were studied.

Sex Distribution: Out of 50 cases studied, 32(64%) patient were males and 18(36%) were females.



Age Distribution: their age ranged from 20 to 65 years with mean age of 48.1years.

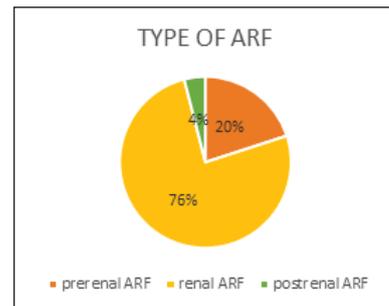
Age group	Number	Percentage
<24	5	10.0
25 - 34	11	22.0
35 - 44	8	16.0
45 - 54	6	12.0
55 - 64	10	20.0
>65	10	20.0
Total	50	100.0

Clinical Symptoms: Out of 50 cases, 46 (92%) patients had vomiting, 40 (80%) had oliguria, 36 (72%) patients had history of fatigue. Fever was seen in 35 (70%) cases and 16 (32%) patient had loose stools.

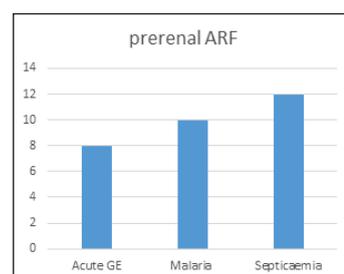
Symptoms and Signs	Number	Percentage
Vomiting	46	92.0
Oliguria	40	80.0
Fatigue	36	72.0
Fever	35	70.0
Loose stools	16	32.0
Oedema	14	28.0
Jaundice	12	24.0

Clinical Signs: Out of total number of patients studied 15(30%) patients had hypotension, 14(28%) patients had oedema and 12(24%) had icterus on general physical examination.

Type of Acute Renal Failure: Out of 50 cases, Renal ARF was seen in 38(76%) patients, 10(20%) patients had prerenal ARF and 2(4%) had post renal ARF.

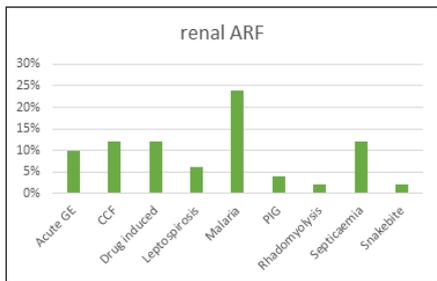


Presentation of Prerenal ARF: Out of 50 cases studied, 10 patients had prerenal ARF. Out of which, 4(8%) patients had acute GE, 5(10%) patients had Malaria and one (2%) patient had ARF following septicæmia.



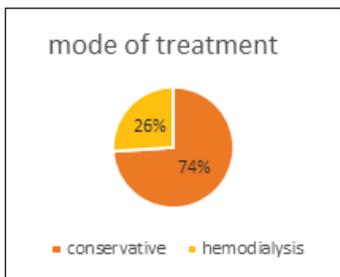
Presentation of Renal ARF: Out of 50 cases, 38 patients had renal cause. Out of which Malaria was seen in 12(24%) patients,

6(12%) patients had nephrotoxic ARF, 6(12%) patients had septicaemia, 2(4%) had postinfectious glomerulonephritis, 2(4%) had snake bite and 1(2%) had rhabdomyolysis. Acute gastroenteritis is seen in 5(10%) patients, CCF in 1(2%).

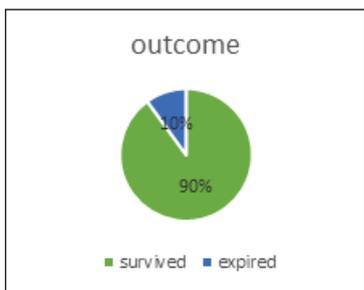


Post Renal ARF: Out of 50 cases 2(4%) patients had ARF following bladder outlet obstruction.

Management: Among 50 cases, 37(74%) patients were managed conservatively and 13(26%) patients underwent haemodialysis. Among the patients managed conservatively 1 (2%) patient died and among those who underwent haemodialysis 4 (8%) patients died.



Outcome: Out of 50 cases studied, 45(90%) patients survived. Mortality was seen in 5(10%) patients. 4 patients had ARF following septicaemia and one patient died due to drug induced renal failure.



CONCLUSION

In this study 50 patients with acute renal failure admitted in Intensive Care Unit at Alluri Sita Ramaraju Academy of Medical Sciences between October 2015 to September 2016 were studied. The clinical features were studied. It was observed that clinical features were almost in accordance with studies conducted earlier. Oliguria and vomiting were still continuous to be the predominant symptoms in acute renal failure. However we observed malaria was the predominant cause of acute renal failure and these patients were recovered with conservative management and antimalarials. Other causes of renal failure in our study were similar to other studies like drug nephrotoxicity, acute gastroenteritis and septicaemia. About 90% patients were survived. 74% of patients were treated conservatively and 26% patients underwent haemodialysis. We observed that early diagnosis and early intervention were probably responsible for good survival rate.

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