



Acute Kidney Injury– Study of Age, Sex and Presenting Complaints among the Selected Patients Admitted in ICU

Authors

Dr Ravi Rajani¹, Dr Babita Ghodke², Dr Badal Taori³

¹Senior Resident, ²Associate Professor and Head of Unit, ³Junior Resident

Abstract

Background: Acute kidney injury (AKI) is a sudden episode of kidney failure or kidney damage that happens within a few hours or a few days. Acute kidney injury (AKI) is still a major problem of today's clinical medicine. Present study aimed to study the acute kidney injury patients admitted in an ICU in terms of their age, sex and presenting complaints.

Methods: 100 patients with acute kidney injury admitted in the intensive care unit of MGM medical college and hospital, Kamothe were selected for the study who are fitting into the inclusion criteria.

Results: The study presented the details of patients admitted with acute kidney injury in ICU. The study showed that maximum patients were males and above 50 years of age. Study also showed that fever and breathlessness were two major complaints among the patients followed by vomiting, pedal oedema, cough and few other.

Keywords: Acute Kidney Injury.

Introduction

Acute kidney injury (AKI) is a new consensus term, encompassing a range of kidney diseases of acute onset.^{1,2,3} Acute kidney injury (AKI) is a sudden episode of kidney failure or kidney damage that happens within a few hours or a few days. Acute kidney injury is common in patients who are in the hospital, in intensive care units, and especially in older adults.⁴ Acute kidney injury (AKI) is still a major problem of today's clinical medicine. It occurs in approximately 1-5% of all patients treated at the hospital.⁵ The incidence significantly increases with progressive severity of the underlying cause: up to 50% of the patients treated at the intensive care unit develop AKI, in many cases as a results of generalized infection or sepsis.⁶ Patients with more severe AKI are at

greater risk of progression to chronic kidney disease (CKD). The 2009 National Confidential Enquiry into Patient Outcomes and Death (NCEPOD) reported that only 50% of patients who died with a diagnosis with AKI received good care.⁷ Two trials, namely program to improve care in acute renal disease (PICARD) and beginning and ending supportive therapy (BEST) for the kidney, confirmed that AKI is a significant contributor toward mortality, morbidity among ICU patients.^{8,9,10} Acute Kidney Injury (AKI) affects over 13 million people per year globally, and results in 1.7 million deaths.^{11,12} The incidence of AKI reported in critically ill patients varies substantially.^{13,14,15,16,17}

Aim & Objective

To study age, sex and presenting complaints in the selected patients with Acute Kidney Injury.

Material & Methods

Study was set up in MGM Medical College and Hospital, Kamothe, Navi-Mumbai. Total 100 patients who were admitted in the Intensive Care Unit (ICU) with Acute Kidney Injury were selected during the study period. Following inclusion criteria were set for the study purpose:

1. Patients who fulfill the RIFLE criteria for Acute kidney disease (Risk, injury, failure). Risk- Increased S.creatinine x 1.5/ Urine output<0.5ml/kg/hr x 6hours.
Injury- Increased S.creatinine x 2 / Urine output<0.5ml/kg/hr x 12hours
Failure- Increased S.creatinine x 3 or S.creatinine >4mg/dl or acute rise >0.5 mg/dl.

OR

Urine output < 0.3ml/kg/hr x 24hours, or anuria x 12hours

2. Minimum of 24 hours of admission

Following investigations were carried out for all the 100 selected patients:

- CBC
- RFT
- LFT
- Sr.Electrolytes
- Malaria Test
- Dengue Serology
- Letpospirosis IgM
- Urine R & M
- Chest Xray
- Ultrasonography of Abdomen
- Sr. Calcium & Phosphorous
- HIV, HbSAG, HCV

Results

Table no 1: Age group amongst study population

Age Group	Frequency	Percent
18 to 30 years	21	21.0
31 to 40 years	21	21.0
41 to 50 years	21	21.0
more than 50 years	37	37.0
Total	100	100.0

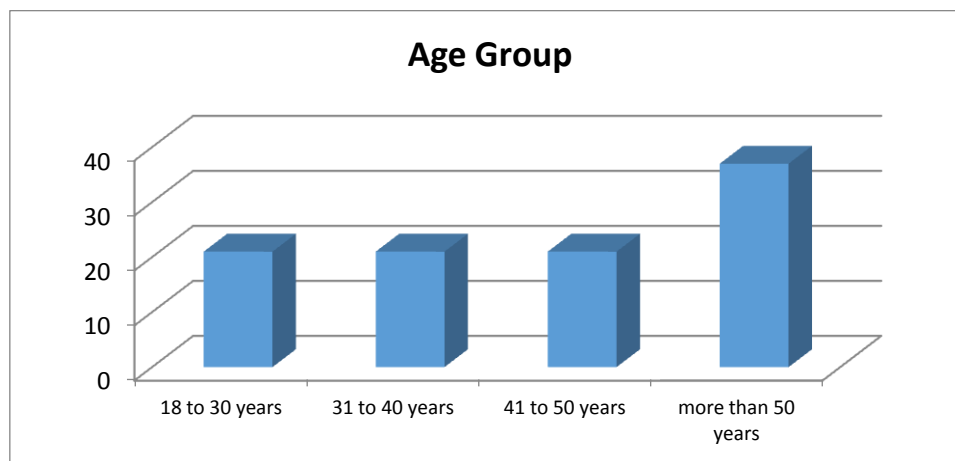


Table no 2 Sex distributions amongst study population

Sex	Frequency	Percent
Female	39	39.0
Male	61	61.0
Total	100	100.0

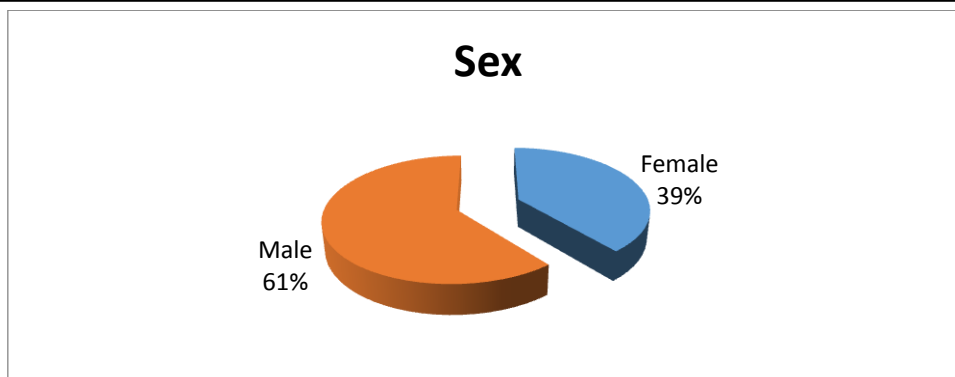
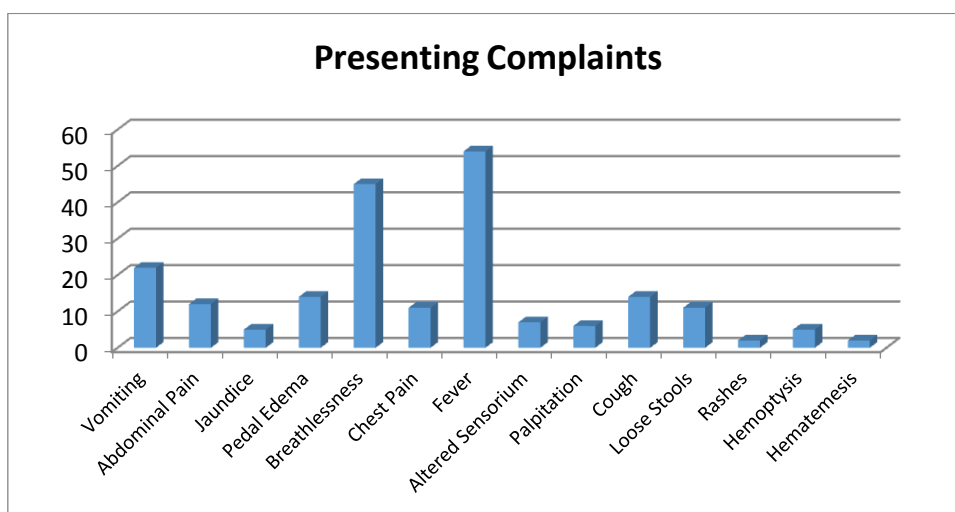


Table no. 3 Presenting Complaints amongst study population

Presenting Complaints	Frequency	Percent
Vomiting	22	22
Abdominal Pain	12	12
Jaundice	5	5
Pedal Oedema	14	14
Breathlessness	45	45
Chest Pain	11	11
Fever	54	54
Altered Sensorium	7	7
Palpitation	6	6
Cough	14	14
Loose Stools	11	11
Rashes	2	2
Haemoptysis	5	5
Hematemesis	2	2



Findings & Conclusion

Total 100 patients who were admitted in intensive care unit (ICU) with acute kidney injury were studied in terms of their age, sex and presenting complaints. Maximum of the study population belongs to the age group of more than 50 years (37%) followed by 41 to 50 years (21%), 31 to 40 years (21%) and 18 to 30 years (21%). There was male predominance (61%) amongst study

population as compared to females (39%).Fever (54%) was the most common Presenting Complaints amongst study population followed by Breathlessness (45%), Vomiting (22%), Pedal Edema (14%) and cough (14%). Apart from these there were other complaints with very less percentage like jaundice, palpitations, loose stools, rashes, haemoptysis and hematemesis.

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