ORIGINAL RESEARCH PAPER

Volume-7 | Issue-11 | November-2018 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

A STUDY OF CLINICAL PROFILE OF PATIENTS OF ACUTE RENAL FAILURE (A STUDY OF 100 CASES)

Medicine

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ABSTRACT

This is a prospective study of 100 cases of Clinical profile of patients of acute renal failure and study of prevalence of complications in those patients. All the patients diagnosed in this institution on investigation will be included in this study over a period of one year (September 2016- November 2017).

KEYWORDS

Oliguria, Hyperkalemia,Dialysis,Pericarditis.

INTRODUCTION

Acute renal failure is a syndrome concerned by rapid decline in kidney function resulting in retention of urea and other nitrogenous waste products which results in deregulation of extracellular fluid volume, electrolytes and acid base balance ARF complicates 5% of Hospital admissions and 30% of admission in intensive care unit. ARF may be asymptomatic and diagnosed when biochemical screening of hospitalized patient.[1]

AIMS & OBJECTIVES

1. To study incidence of various causes of acute renal failure.
2. To study and evaluate the acute renal failure and distinguish it from chronic renal failure.
3. To study clinical profile of acute renal failure pattern. 4. To study the indications of dialysis in patient with acute renal failure & clinical response to it.
5. To evaluate basic approach for managing patient of acute renal failure.
6. To evaluate most common nephrotoxic drugs that can aggravate acute renal failure or can cause acute tubular necrosis in seriously ill patient.

MATERIALS AND METHODS

This is a prospective study of 100 cases of Clinical profile of patients of acute renal failure and study of prevalence of complications in those patients . All the patients diagnosed in this institution on investigation will be included in this study over a period of one year (September 2016- November 2017).

A systemic approach is based on history, personal history, clinical examination and laboratory data will be made during this study. All relevant data will be collected and scrutinized for outcomes.

TYPE OF STUDY : A CROSS SECTIONAL STUDY
STUDY POPULATION : 100 cases of patients of acute renal failure
STUDY DESIGN : Hospital based
STUDY AREA : Tertiary Hospital , attached to medical college, Guru Govind Singh Hospital, Jamnagar, Medicine department ward 1 -7.
STUDY DURATION : 1 year
SAMPLE SIZE : 100 cases of patients with ACUTE RENAL FAILURE.
SAMPLING PROCEDURE : Simple Random Sampling
METHOD: a written informed consent form will be given to the patient and if patient permits, I will recruit patient in my study. Data will be collected using a pretest.

INCLUSION CRITERIA :

All patient with and biochemical evidence of Acute renal failure according to RIFLE criteria were included in this Study.

EXCLUSION CRITERIA:

*Patient with recent history of chronic Renal failure
* Age below 1 2 years
*Pregnantfemale
* Hemodynamically unstable patient due to severe Co-morbid condition other then acute renal failure Ex. Recently diagnosed case of cerebrovascular accident Ex. cardiogenic shock Ex. Septic shock due to pneumonia etc.

RESULTS

Incidence of Pre renal AKI is maximum between 40-60 years with maximum 6 cases. Incidence of Intrinsic renal AKI is maximum between 30 - 60 years with mean age of 45 years. Incidence ofost renal AKI is maximum in more than 60 years with maximum 5 cases. In the present study 1 2% patients having a pre-renal AKI , 82% patients having Intrinsic renal AKI & 6 % patients was having postrenal AKI; 94 % patients were Oliguric & 6 % patients were nonoliguric. History of Diabetes is present in 28 % of patients , Hypertension in 28 % of patients , CRF in 8 % of patients. In present study 5 out of 1 5 patients of drug induced AKI were due to NSAIDS; most of the patients having oedema feet(67%),followed by puffiness of face(53%); 60 % patients were Normotensive , 28 % patients were Hypertensive , 1 2 % were Hypotensive; 7 % of patients having severe anemia and 35 % of patients having moderate anemia; since > 80 % patients were showing increase TLC ,suggest possibility of sepsis or infection as contributor factors for AKI; 38% Pts having RPD changes and 7% of Pts having renal stone; 66 patients were having urea <1 00 mg/dl , 34 patients were having urea >1 00mg/dl , out of which 1 patients were having >200 mg/dl. in present study 7 patients were S.Creatinine >9 mg/dl. 30% of patients with AKI having urin albumin (+)and 9% having albumin(++++) , 74.4 % patients were having hyponatremia , 8.58 % patients were having hypernatremia & 5.31 % patients were having hypokalemia, 1 3.8 % patients were having hyperkalemia. In various types of ARF HD required in 1 5 % of patients & No peritoneal dialysis (No facility for peritoneal dialysis is available),Total 54 out of 1 00 were expired.Mortality rate is 54 % in various types of ARF. mortality is more in patients who are undergone hemodialysis. In oliguric patients out of 94 , 1 5 patients were required dialysis & In Non oliguric patients out of 6 , 0 were required dialysis. mortality rate is higher in oliguric patients.

DISCUSSION

Incidence of pre renal AKI is more in barry M brammer, as compare to rest of two study. in present study and Anderson et a study intrinsic renal failure is more common. In the present study incidence of Oliguric renal failure is more (94 %) compare to 'Anderson et al' study in which incidence of Non oliguric is more (59%).because in present study oliguric patients turned to non oliguric after treatment is not counted. Where as barry m brammer study[2] incidence of oliguric AKI is close to present study. In present study most common cause for various type of AKI are sepsis (45%) , Hypovolemia (12%), Nephrotoxin (15%) , and Obstuction (6%). The incidence varies among various study but hypovolemia is common cause for causing AKI among all. In present study as well as briggs et al study[3], post septicemic, toxin induced remain the most common causes of in oliguric patients while 'Anderson et al' study[4], post operative and volume depletion remain the main cause. In present study patient were studied from medicine department only and also those patient who was referred to medicine department for management that is the reason

why post operative causes are less common in present study. In present study for Non oliguric patients ,main causes are post septicemic (66.67 %) and toxin induced(33.34%).toxin induced AKI remain common cause in all 3 study In both study majority of patients having age more then 60 years. in present study the incidence of AKI is high in patients with past history of DM(28%), HTN(28%), CRF(8%).Compare to Rasmussen[5] and Ibels study[6] incidence of more then one risk factor in precipitating factor for AKI is relatively less in present study. In present study 12 % of patients was having hypotension on admission and 28 % of patients of having hypertension diastolic BP > 1 00 mm Hg. That is nearly same as 'Briggs et al' study[3]. In present study , Mean Bl. Urea is 1 32 mg/dl and mean reatinine level is 7.8 mg/dl for oliguric patient and innonoliguric patient mean blood uria is 68 mg/dl and S.Creatinine 3.3 mg/dl. In present study maximum range of Bl. Urea is 240 mg/dl and maximum creatinine level 1 4 in oliguric patient , in non oliguric patient maximum Bl. Urea is 1 1 2 mg/dl and S.Creatinine is 4.8 mg/dl. In present study 15.86 % of patient required dialysis in oliguric patient and 0 % in non oliguric patients.

Incidence of death rate is also high in oliguric patient (55.31 %) that is matching with 'Anderson et al' study[5] (50 %). 33.33% death were noted in Non oliguric patient that suggest mortality rate in non oliguric patient is higher in present study then Anderson et al study(26%)[5] .

CONCLUSION

* Intrinsic renal failure is most common among all three types. and males are more commonly affected then females.

- Nausea vomiting, reduced urine output, fever and puffiness of face are common features of AKI Pre-existing renal disease,DM2,HT increases the risk for development of acute renal failure.
- Prognosis further decreased when more than one risk factor are present.
- Sepsis and Nephrotoxic drugs remain major cause for AKI.Amongst nephrotoxic drugs aminoglycosides are more likely to cause AKI.
- Moderate to severe Anemia present in most of the patients. Among respiratory complication Dyspnoea, basal crepts, plural effusion and kussmaul's breathing are common and seen in late stage.
- Pre renal and post renal patient have better prognosis than intrinsic renal failure. Prognosis is also poor with high Bl.urea and creatinine levels.
- Mortality is higher in oliguric renal failure.
- Early diagnosis and proper treatment of conditions like DM,HTN and renal stone may retard the progression of renal disease.

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