

INCIDENCE OF AKI IN NON-CRITICALLY ILL GERIATRIC POPULATION AND CORRELATION WITH CLINICAL PROFILE IN TERTIARY CARE HOSPITAL

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INTRODUCTION

The elderly population is particularly vulnerable to AKI due to age-associated structural and functional kidney alterations, which reduce their ability to manage stressors and insults effectively¹. With age, there is decreased renal mass, decreased renal blood flow, altered tubular functions, decreased GFR, and lower functional renal reserve, making them more susceptible to renal insults². These age-related changes, compounded by coexisting conditions like diabetes and hypertension prevalent in this age group, heighten the risk of AKI³.

Acute Kidney Injury (AKI) is a prevalent complication among the elderly, often leading to increased mortality, morbidity, and prolonged hospital stays. The progression of AKI to chronic kidney disease (CKD) in this demographics accentuates its long-term health implications. This study aims to investigate AKI incidence in non-critical geriatric populations and its correlation with clinical profiles.

AIMS AND OBJECTIVES

This study aims to contribute essential insights into the epidemiological patterns of AKI, aiding in the formulation of targeted preventive measures and intervention strategies, ultimately alleviating the health burden associated with AKI in the elderly in India.

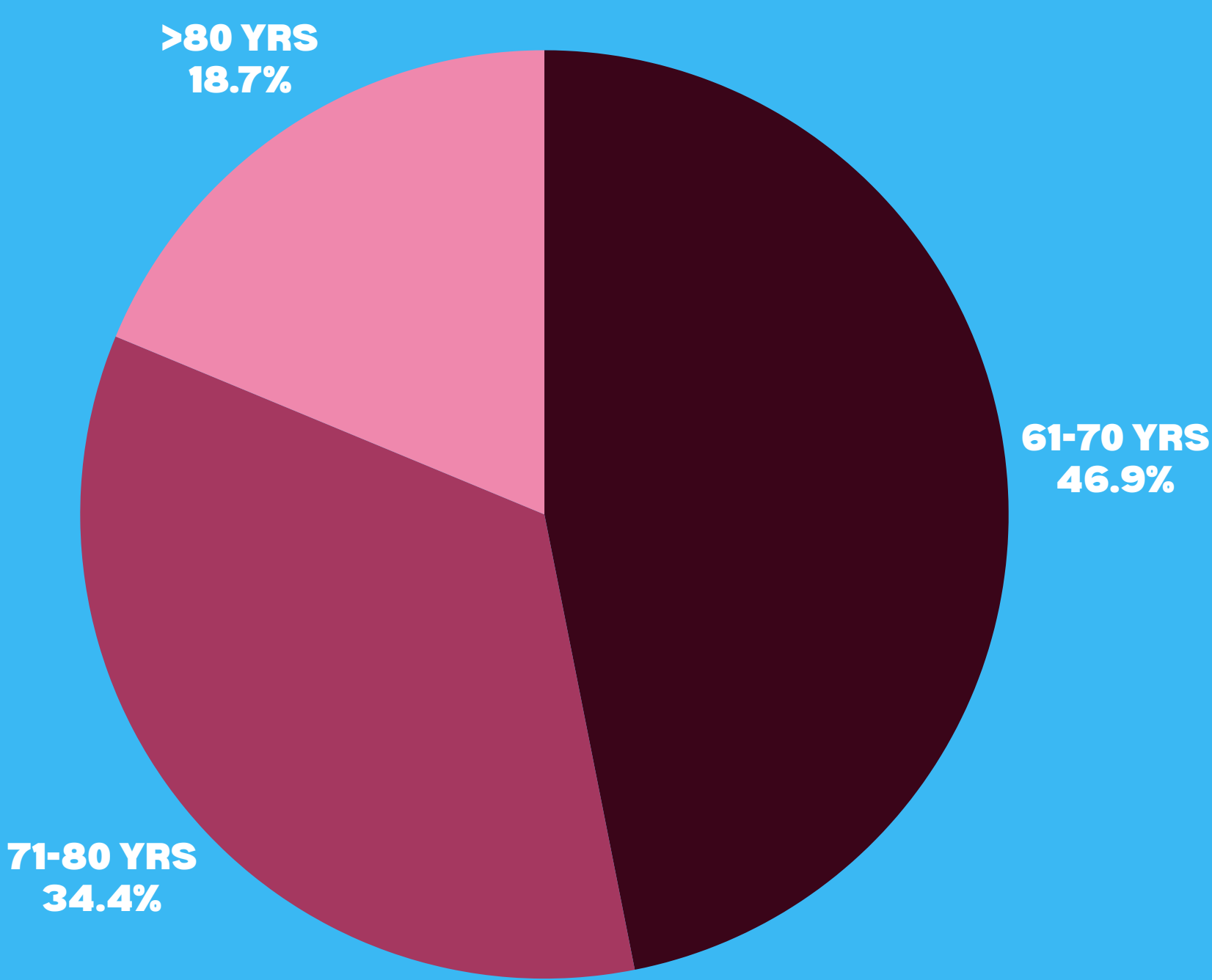
MATERIALS AND METHODS

A single-centre cross-sectional study was conducted from July 2024 to December 2024 which included geriatric patients admitted to the Department of Geriatrics and Nephrology at JSS hospital, Mysore. The study included cases with AKI incidence and age above 60, excluding known CKD cases on maintenance hemodialysis and critically ill patients. Comprehensive histories and thorough investigations were performed, including renal function tests, urine analysis, and abdominal ultrasonography.

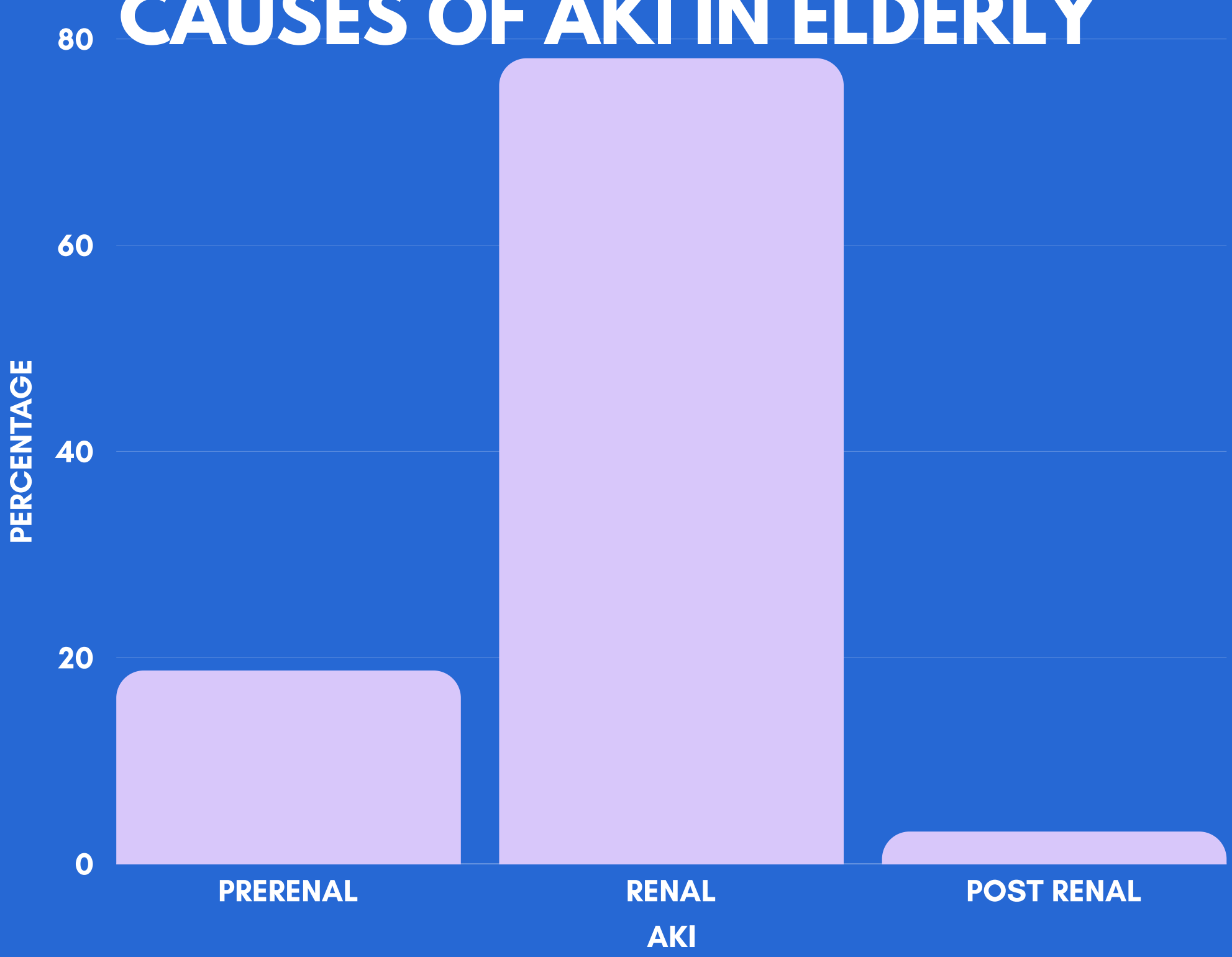
DISCUSSION

It was observed that a substantial proportion of AKI cases (46.87%) fell within the age group of 61-70 years, followed by 34.38% in the age group of 71-80 years and 18.75% in the age group exceeding 80 years. Among AKI cases, 28.13% had diabetes mellitus, 50% had hypertension, and 15.62% had multiple comorbidities. The causes of AKI were thoroughly explored, revealing three main categories: pre-renal causes (18.45%), renal causes (78.13%), and postrenal causes (3.13%). Dehydration was the primary cause for pre-renal AKI, most of it caused by acute gastroenteritis (58%), while renal causes were mainly infection and sepsis-related (80%). Postrenal causes were relatively rare and typically involved benign prostatic hypertrophy. Most of the cases (85.94%) were managed conservatively in patients with prerenal AKI, primarily through administering antibiotics and intravenous hydration.

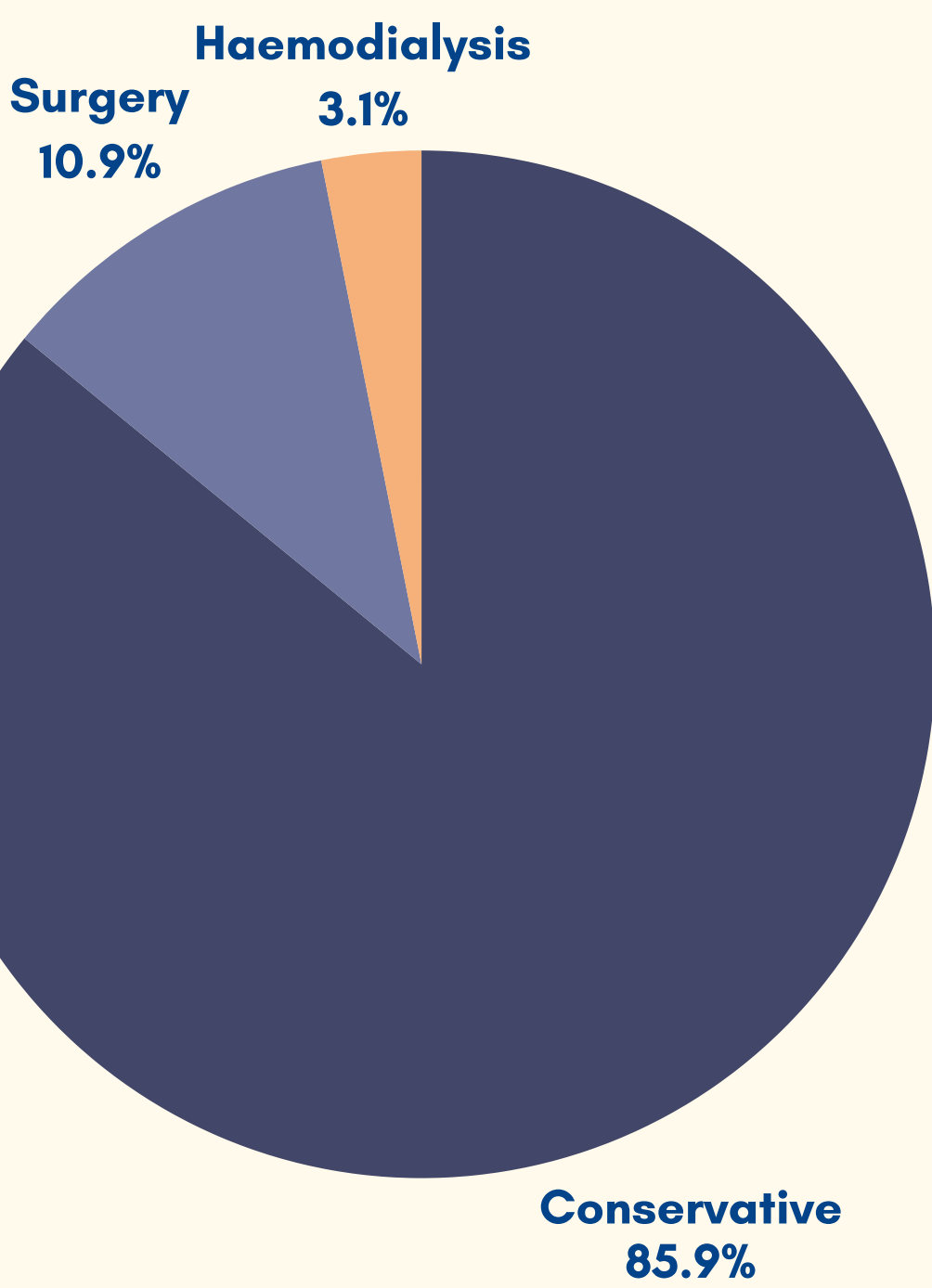
INCIDENCE OF AKI



CAUSES OF AKI IN ELDERLY



MANAGEMENT



CONCLUSION

This study emphasizes the high incidence of AKI in the non-critical geriatric population and shows the importance of timely and vigilant renal function monitoring. Early detection and appropriate management of AKI, especially in infection-related cases, can significantly impact outcomes and prevent mortality and morbidity in elderly.

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