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Chronic kidney disease stage 5 and severe complications in a 60-year-old Male with hypertension

M.Divya, Assistant Professor, Department of Pharmacology, Avanthi Institute of Pharmaceutical Sciences

Asha Parveen, Associate Professor, Srinivasa College of Pharmacy

Corresponding Author: Jaya Surya Bammidi, Avanthi Institute of Pharmaceutical Sciences, Cherukupally, Vizianagaram

Abstract:
The case study illustrates the complex interaction between hypertension with severe CKD, emphasizing the importance of integrated treatment to address chronic kidney disease, imbalances in electrolytes, and associated consequences.
Keywords: Hypertension, CKD, imbalances in electrolytes.

Introduction

Stages 5, with an ageing population contributing to this rise [1,2]. Diabetes is the single most prevalent cause of renal failure, accounting for 24 percent of patients with CKD in the UK [3]. The National Institute of Clinical Excellence (NICE) recommends that persons with CKD stages 4 and 5 be sent to a nephrologist for a professional assessment. General Practitioners (GPs) are usually able to manage stages 1-3 [4]. Other medical disorders, such as diabetes and coronary artery disease are frequently connected with CKD. Patients with advanced CKD are at a higher risk of death [5]. Whereas renal replacement therapy (RRT) has improved the prognosis of kidney disease, the disease continues to impact quality of life, and there is a large treatment cost associated with dialysis[6]

Case study

A 60-year-old male patient was admitted to the nephrology ward with the major complaints of acute dyspnea for one week, decreased urine production for seven days, loss of appetite for eight days, pedal edema for eight days, and general weakness. Normal sleep and aberrant bladder function are seen over use of analgesics. Known case of hypertension since 5years. On general examination, all vital signs are normal except blood pressure (140/90) hypertension along with GFR level less than 15ml/min/1.73m^2. Laboratory tests reveal hematuria, albuminuria, proteinuria, ketonuria, increased blood creatinine levels, hyperkalemia, anemia, hypocalcemia, and uremia.

Diagnosis

The patient was diagnosed with Chronic Kidney Disease Stage 5 as an indication of hypertension.

Management

Lasix 20 mg intravenous injection is given twice a day. Lasix is a furosemide that is used to treat edema. Pantoprazole 40 mg is administered intravenously once daily. Amlodipine 5mg in conjunction with atenolol 50 mg, taken orally, is used to treat hypertension. Once a day, a

10 mg tablet of atorvastatin is taken orally. Tab B complex was administered once per day. Calcium gluconate injection is administered intravenously twice daily.

Discussion

Due to the patient's drastically decreased glomerular filtration rate (GFR), hemodialysis or peritoneal dialysis may be required to control uremic complications and correct electrolyte imbalances. Hypertension management is critical for preventing additional kidney damage.Managing fluid overload and resolving imbalances, particularly hyperkalemia. Analgesic usage and probable nephrotoxicity are assessed. The use of suitable therapy, including Renal Replacement Therapy, is critical in improving patient outcomes and managing the numerous problems associated with advanced renal disease.

Conclusion

The five-year-long hypertension most certainly led to the advancement of chronic renal failure to its severe stage. This situation necessitates a multidisciplinary approach, with a focus on replacement therapy for kidneys, managing blood pressure, balance of electrolytes restoration, and treatment of concomitant comorbidities such as anaemia and metabolic derangements.

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