



Congress Abstract

Severe Uremic and Hyperkalemic Decompensation in a Patient with End-Stage Diabetic Kidney Disease Receiving Maintenance Hemodialysis: A Case Report

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ABSTRACT

Introduction: Diabetic kidney disease is a major cause of end-stage kidney disease and is frequently accompanied by cardiovascular and metabolic complications. Patients receiving maintenance hemodialysis remain at high risk of life-threatening complications, particularly when multiple comorbidities are present. We present a case of severe metabolic decompensation in a patient with end-stage diabetic kidney disease receiving maintenance hemodialysis.

Aim: To describe the clinical presentation, laboratory abnormalities, emergency management, and short-term clinical response in a patient with end-stage diabetic kidney disease and multiple comorbidities receiving maintenance hemodialysis.

Methods: A clinical case was analyzed based on the patient's medical records, including clinical presentation, laboratory investigations, comorbid conditions, treatment, and clinical course during hospitalization.

Results: A 59-year-old woman with type 2 diabetes mellitus complicated by diabetic kidney disease and end-stage chronic kidney disease (CKD stage 5) had been receiving maintenance hemodialysis three times weekly since March 2026. Her comorbidities included rheumatoid arthritis, congestive heart failure, diabetic polyneuropathy, anemia of chronic disease, bilateral secondary gonarthrosis, cholelithiasis without cholecystitis, hemorrhoids, and a stage III pressure ulcer. She was admitted in a severe condition with marked weakness, poor appetite, nausea, vomiting, and impaired consciousness. Laboratory evaluation demonstrated severe azotemia, with a creatinine level of approximately 1154 $\mu\text{mol/L}$ and urea of 47.7 mmol/L, accompanied by hyperkalemia (6.3 mmol/L). The clinical picture was consistent with severe uremic and metabolic decompensation in the setting of end-stage kidney disease. Emergency hemodialysis and comprehensive supportive treatment were performed. Following treatment, serum creatinine, urea, and potassium levels decreased, accompanied by clinical stabilization.

Conclusion: This case highlights the high risk of severe metabolic complications in patients with end-stage diabetic kidney disease receiving maintenance hemodialysis, particularly in the presence of substantial cardiovascular and systemic comorbidity. Early recognition of uremic and electrolyte disturbances and timely initiation of hemodialysis are essential for preventing life-threatening complications and achieving clinical stabilization.

Keywords: Diabetic Kidney Disease; End-Stage Kidney Disease; Maintenance Hemodialysis; Hyperkalemia; Uremic Syndrome