Emergent haemodialysis in elderly patients: A descriptive study

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Abstract

Introduction: The incidence of renal failure has increased markedly in the elderly, posing a major public health challenge. Emergency haemodialysis in those over 65 requires careful consideration of factors such as vascular access, underlying conditions, and comorbidities. However, the scientific literature lacks detailed studies on this specific population. This study aims to descriptively analyse the clinical and biological aspects, haemodialysis session parameters, therapeutic outcomes, and complications in elderly patients undergoing emergency haemodialysis.

Description: This is a cross-sectional study conducted over one year, including patients over 65 years old who presented with acute or chronic renal failure and required an emergency haemodialysis session. Patients already on dialysis were excluded.

Methods: Data were collected from patients aged 65+ who received emergency haemodialysis at Mongi Slim Hospital, Tunisia, over one year. Inclusion required a rapid decline in renal function. Clinical characteristics, biological parameters, outcomes, and complications were analysed descriptively.

Results: Over one year, 29 patients aged 65+ were included, with a mean age of 73 years and a sex ratio of 1.23. Most patients (85.7%) were referred from the emergency department. Hypertension, diabetes, and heart disease were present in 81.5%, 59.3%, and 29.3% of cases, respectively. Chronic renal failure was found in 33.3%. Haemodialysis indications included hyperkalemia (37.9%), acute pulmonary edema (31%), severe metabolic acidosis (20.7%), transfusion (17.2%), and uremic syndrome (6.9%). A femoral catheter was used for vascular access. Left ventricular ejection fraction was below 40% in 37.5% of cases. Median hemoglobin and serum calcium levels were 9.35 g/dL and 2 mmol/L, respectively. Sessions lasted 3 hours on average, with 87% using a 15L filter and 67.9% having a pump flow rate of 280 ml/min. Anticoagulation was adjusted by weight. Peridialytic complications included hypotension (49.5%), nausea and vomiting (14%), and hypoglycemia (6%). In-hospital mortality was 16.9%.

Conclusion: In conclusion, this study highlights the specific challenges encountered in managing acute renal complications in elderly patients, underscoring the importance of early and effective emergency haemodialysis intervention. Early and accurate detection of acute renal failure and undiagnosed chronic kidney disease is crucial to positively influence the prognosis of these patients.