

CASE REPORT

ONLINE EXCLUSIVE

> THE PATIENT

94-year-old man

> THE CHALLENGE

The patient's clinical picture included end-stage renal disease, an exacerbation of congestive heart failure, and an inability to perform certain instrumental activities of daily living. Would starting hemodialysis be beneficial?

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> THE CASE

A 94-year-old Hispanic man with hypertension, congestive heart failure (CHF), anemia of chronic disease, and end-stage renal disease (ESRD) presented to our facility with weakness and shortness of breath. We diagnosed a CHF exacerbation. Initially, he exhibited some respiratory distress that required observation in the coronary care unit and bi-level positive airway pressure therapy to maintain oxygen saturation. Our patient was then moved to a step-down unit where his primary caregiver, his granddaughter, told the medical team that he was limited at home in some of his instrumental activities of daily living. Specifically, he was unable to prepare meals or manage his finances on his own.

Nephrology was consulted for consideration of hemodialysis (HD) because our patient's creatinine on admission was 7.2 mg/dL (normal for men is 0.7-1.3 mg/dL) and his estimated glomerular filtration rate (GFR) was 7 mL/min (normal is 90-120 mL/min). The patient's family was conflicted over whether or not to start HD. Palliative Care was consulted to help establish goals of care.

■ **A decision is made.** In light of the patient's limited functional status and his expressed desire to stay at home with his family and receive limited medical care there, the Nephrology and Palliative Care teams recommended delaying HD despite the patient's worsening renal function. The patient was discharged home with home care services, and he and the family were instructed to follow up with Nephrology for supportive renal management.

DISCUSSION

The decision to delay HD in patients with ESRD is a difficult one that requires shared decision-making between patients and medical providers. Palliative Care consultation services are often involved in this process.

Recent literature supports an "intent-to-defer" based on an evaluation of the patient's functionality. This represents a paradigm shift from the previous "intent-to-start-early" treatment strategy. In fact, rather than starting early, the Canadian Society of Nephrology recommends delaying initiation of HD in patients with a GFR <15 mL/min.¹ Close monitoring of these patients by both a primary care physician and nephrologist is essential.

■ **When considering initiation of HD,** it's important to look at the overall benefit of this intervention in light of the patient's mortality risk and quality of life. Many patients who receive HD—especially the elderly—report that it takes more than 6 hours to recover following a dialysis treatment.²

■ **Not surprisingly, depression is common** in elderly HD patients. Compared to their younger cohorts, older HD patients have a 62% increased risk of developing depression.³ Also, patients who are considered frail and are receiving HD have more than 3 times the

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mortality risk within one year than those who are not (hazard ratio=3.42; 95% confidence interval, 2.45-4.76).⁴ (The researchers' definition of frailty included poor self-reported physical function, exhaustion/fatigue, low physical activity, and undernutrition.⁴)

■ **Functional status.** Although a patient's age should not be a limiting factor for HD referral, functional status should be considered. Patients with limited functionality and significant dependence have an increased risk of death during the first year of HD.⁵

■ **Palliative approach gains acceptance.** It is becoming more accepted within the nephrology community to consider a palliative approach to patients with ESRD. Organizations such as the Renal Physicians Association recommend effective prognostication, early advanced care planning, forgoing HD in patients

with a poor prognosis, and involving Palliative Care early in the decision-making process.⁶ Aligning the patient's goals of care with the appropriate treatment method—particularly in patients with comorbid conditions—is an important practice when caring for those with limited life expectancy and functionality.⁷

THE TAKEAWAY

Intent-to-defer HD may be a preferred strategy when caring for many patients with ESRD. Taking into consideration a patient's comorbidities and functional status, while considering mortality risk and quality of life are essential. Involving palliative care and nephrology specialists can help patients and families understand HD and make an educated decision regarding when to start it. **JFP**

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