

Palliative dialysis in hospice: A paradox or promising answer?

Dear Editor,

End-stage renal disease (ESRD) patients have higher mortality, hospital admissions and invasive procedures towards the end of life.¹ However, many of them (82%) prioritise minimising suffering over life prolongation. Although twice as many patients prefer dying at home and inpatient hospice (65%) compared to hospital (27%), hospice utilisation remains lower for dialysis patients (20%) compared to those with cancer (55%) and heart failure (39%).² For patients continuing dialysis until death, hospice usage plummets further (18% versus 58%).³

Dialysis seemingly contravenes traditional hospice tenets of prioritising comfort over life prolongation. The dilemma of withdrawing dialysis to enter hospice, or continue dialysis but forgo hospice, is a disservice to patients who are seeking a transition to comfort-driven care, yet would benefit symptomatically, psychologically and prognostically from dialysis.

We describe a case of a patient on peritoneal dialysis (PD) with concomitant malignancy, who restarted PD in an inpatient hospice after initial dialysis withdrawal.

The patient was a 78-year-old man with lung adenocarcinoma with metastases to brain and pleura. He was on PD for ESRD secondary to diabetic kidney disease.

Seventeen days into second-line chemotherapy, he was admitted to hospital for delirium and functional decline. Considering the rapid deterioration, his oncologist advised for best supportive care and gave a prognosis of 3 months. He concurrently developed recurrent intradialytic hypotension, rendering PD unsafe. A goals-of-care discussion was conducted with his wife, and PD was withdrawn. Unfortunately, the patient's delirium prevented his participation in this discussion.

He was transferred to our inpatient hospice, where his haemodynamics and confusion significantly improved. He could communicate his wishes coherently and consistently. He desired to continue PD until medically contraindicated, while shifting care goals towards prioritising comfort, as he was cognisant of the limited prognosis portended by his incurable malignancy. After discussion with his oncologist, nephrologist and palliative care physician, we restarted PD in our inpatient hospice.

We worked closely with the hospital's nephrology team for PD regime adjustments and practical guidance. We enlisted the expertise of his wife who was previously trained, to carry out PD. He was transited to twice-weekly PD of 1.5% dextrose solution with total therapy volume of 8 litres over eight hours with no last fill volume. We did not carry out blood investigations for monitoring, but sought to be symptom-guided.

He successfully underwent 2 PD sessions. On the third session, he developed hypotension with drowsiness, and PD was aborted. On the fourth session, he developed distressing abdominal pain, and after discussion, the therapeutic burden was deemed intolerable. PD was formally withdrawn, with transition to full comfort care, and the patient demised comfortably 4 days later.

Renal palliative care is gaining attention, but still underdeveloped.⁴ The protracted journey from early disease to ESRD is fraught with both physical symptoms and psychological distress. Early advance care planning is imperative to navigate care goals when life-limiting illnesses, either related to or independent of ESRD, arise. In the latter, many adopt an "all-or-nothing" approach where dialysis and palliation are mutually exclusive. The concept of palliative dialysis, though lacking a uniform definition, is summarised by Axelsson et al. as being focused on quality of life over achieving medical parameters.⁵

As alluded to, palliative dialysis in hospice may be suitable for patients with a poor, yet reasonable prognosis, owing to other life-limiting illnesses. It provides a bridge between dialysis and withdrawal, when both are suboptimal—the former becoming burdensome, while the latter undesirable for several reasons: expected severe symptoms,⁶ predictably short prognosis,² and ethical struggles (12% of patients being unsure or believing it akin to suicide).⁷

Evidence supporting hospice dialysis is promising, with better outcomes shown in dialysis patients receiving hospice services than those without.³ ESRD hospice enrolments also occur regrettably late in the disease course,⁸ and lengthening the admission duration by virtue of a longer prognosis on dialysis will allow patients and families to further benefit from hospice care.

We restarted PD in hospice for various reasons in an endeavour to maximise quality, without compromising

quantity, of life. Firstly, balancing the certainty of death in days to short weeks without dialysis, with the less certain trajectory of cancer. Secondly, normalised haemodynamics permitted PD to proceed. Thirdly, the patient's improved cognition allowed him to meaningfully enjoy the lengthened time. Lastly, his expressed wishes to continue PD while pursuing comfort-driven care, which aligns with hospice philosophy.

Several challenges arose in this undertaking. The inpatient hospice setting lacked on-site nephrologists for dialysis regime and medication adjustments, and dialysis nurses with practical expertise. This was circumvented by strong collaboration with the hospital's nephrology team who availed themselves for off-site consultation.

With palliative dialysis, clear objectives and limits should be discussed early with patients and family. In this case description, severe distress during PD meant treatment burden outweighed the benefits. Symptomatic hypotension also precluded safe dialysis provision. Other considerations include patients' requests and dialysis access dysfunction that cannot be resolved by conservative management.

The role of dialysis in a hospice remains fairly uncharted territory, as there is no clear framework for patient selection and metrics to guide management. Additionally, there are limited specific funding mechanisms for dialysis patients in hospice care. Dialysis is health-resource intense, and many voluntary welfare organisations in Singapore supporting haemodialysis require adherence to dialysis prescription so they could achieve acceptable medical parameters, to justify the use of donor funding for financial aid. In this patient, existing PD supplies from his home helped to circumvent the issues of potential additional costs. Therefore, a concerted effort involving hospices re-evaluating workflows, legislation for funding, and

greater acceptance by medical practitioners and the palliative care community is needed to provide dialysis-dependent ESRD patients with better end-of-life care when facing the inevitable.

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