ARTICLE IN PRESS

Nefrologia xx (2025) 501366





Revista de la Sociedad Española de Nefrología

journal homepage: www.revistanefrologia.com



Letter to the Editor

Hemodialysis to keep on dancing

Hemodiálisis para seguir bailando

Mr. Director,

The criteria for starting a regular hemodialysis program are not always easy to apply.

We present the case of a 70-year-old patient with advanced chronic kidney disease (ACKD) secondary to renal mass loss. In 2015, at 60 years old, the patient presented with clear cell renal carcinoma in the left kidney, which was treated with radical nephrectomy.

In 2018, treatment with sunitinib was started for lung metastases. Sunitinib treatment was suspended in May 2022 due to deterioration of renal function despite complete radiological response. The patient subsequently received treatment with nivolumab and axitinib.

In May 2023, cabozantinib was started due to hepatic and bone progression. However, in 2024, the patient developed nephrotic syndrome secondary to a tyrosine kinase inhibitor (TKI). In addition, metastatic progression was evidenced by a right hilar mass that completely occupied the right upper bronchus and bone metastases.

In consensus with Oncology, cabozantinib was maintained due to the limited availability of therapeutic alternatives.

From a renal perspective, the patient presented with renal failure progression to a Cr of $7.56\,\text{mg/dl}$, a GFR (CKD-EPI) of $6.6\,\text{ml/min/}$ $1.73\,\text{m}^2$, a urea concentration of $336\,\text{mg/dl}$, a sodium concentration of $137\,\text{mmol/l}$, and a potassium concentration of $4.2\,\text{mmol/l}$. Despite optimization of the medical treatment, renal failure did not improve.

In the follow-up ACKD consultation, conservative treatment of renal disease was initially proposed due to asthenia, progressive weight loss and tumor progression was initially proposed. However, the patient maintained an active life within his abilities, including his habit of going out on Saturdays to dance.

After adequate information on the available options and possible risks was obtained, in a joint decision led by the patient, replacement therapy was started by hemodialysis through a tunneled catheter.

The only recorded complication was tunnelitis with catheterassociated thrombosis six months after the start of dialysis, which was resolved by antibiotic therapy, catheter replacement and anticoagulation.

Since December 2024, the patient has been treated with everolimus.

Renal cancer is the ninth most frequently diagnosed tumor in Spain, and it is estimated that by 2025, 9794 new cases will be diagnosed in our country. Approximately 75% of renal cancers are clear cell carcinomas. The prognosis of this tumor when it is

disseminated has changed drastically since the introduction of TKIs and lymphocyte immune checkpoint inhibitors (ICIs): TKIs (sunitinib, pazopanib, axitinib, cabozantinib, and tivozanib) inhibit multiple tyrosine kinase receptors that are involved in tumor growth and angiogenesis, and ICSs, such as nivolumab and pembrolizumab (anti-PD-1) and ipilimumab (anti-CTLA-4), block immune checkpoints that limit the immune response against tumor cells.²

Currently, the use of different treatment strategies is associated with extended survival and possibly a cure in some subgroups of patients. 3

Given this context, the initiation of dialysis in patients with progressive metastatic neoplasia is a topic of bioethical debate owing to the difficulty of determining which patients are likely to benefit and which patients will experience an increased risk of complications, adverse effects or decreased quality of life.⁴

Given the higher mortality in the first 120 days after the start of dialysis, ⁵ many CKD units advocate conservative treatment of CKD if the patient has a life expectancy of less than 6 months (as, for example, in a large proportion of patients with uncontrolled and progressive tumor disease), with the goal of maintaining quality of life and avoiding therapeutic obstinacy. However, nephrologists must accept that metastatic tumor disease no longer implies low short-term survival, and we must not eliminate the possibility of inclusion in renal replacement therapy.

At this point, a new question arises: What is the appropriate dialysis for patients with progressive tumor disease for whom renal replacement therapy is initiated? In palliative dialysis, the frequency and/or duration is reduced to alleviate some of the symptoms secondary to renal pathology, with a dialysis pattern that is as comfortable as possible. ^{5,6} The guidelines for adequacy in palliative hemodialysis focus on the dose of dialysis or Kt/V. ⁷ In contrast, peritoneal dialysis guidelines prioritize the patient's symptoms over the Kt/V obtained in a situation of good nutrition control, volume and complications associated with uremia. ⁸

Therefore, perhaps the time has come to reflect on the objectives for each subgroup of patients and to adapt the guidelines for adequacy as the patient's situation develops over time.

Now, fifteen months after the start of hemodialysis, the patient continues to go out on Saturdays to dance.

Declaration of competing interest

Alba Santos declares the payment of conference fees from AstraZeneca, Bayer, Boehringer-Ingelheim and Eli Lilly.

Jose Andrés Meana declares having received honoraria for presentations and travel grants from BMS, Ipsen and Pfizer.

Sandra Lizeth Castro declares no conflicts of interest.

https://doi.org/10.1016/j.nefroe.2025.501366

2013-2514/© 2025 Sociedad Española de Nefrología. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

ARTICLE IN PRESS

A. Santos García, S.L. Castro Molano, J.A. Meana

Nefrologia xx (2025) 501366

Acknowledgments

We acknowledge the patient in this clinical case for how much it has taught us.

References

- Las cifras del cáncer en España. Sociedad Española de Oncología Médica (SEOM), 2025.
- Roskoky R. Combination immune checkpoint and targeted protein kinase inhibitors for the treatment of renal cell carcinomas. Pharmacol Res. 2024;203107181, http:// dx.doi.org/10.1016/j.phrs.2024.107181
- Thouvenin J, Masson C, Boudier P, Maillet D, Kuchler-Bopp S, Barthélémy P, et al. Complete response in metastatic clear cell renal cell carcinoma patients treated with immune-checkpoint inhibitors: remission or healing? How to improve patients' outcomes? Cancers. 2023;15:793. https://dx.doi.org/10.3390//cancers.15030703
- outcomes? Cancers. 2023;15:793, http://dx.doi.org/10.3390/cancers15030793

 4. Sánchez Hernández R, Mora-Gutiérrez JM. Adecuación del esfuerzo terapéutico en la enfermedad renal crónica avanzada. En: Lorenzo V, López-Gómez JM. (eds). Nefrología al día. Available from: https://www.nefrologiaaldia.org/618.

 5. Robinson BM, Zhang J, Morgenstern H, Bradbury BD, Ng LJ, McCullough KP, et al.
- Robinson BM, Zhang J, Morgenstern H, Bradbury BD, Ng LJ, McCullough KP, et al. Worldwide, mortality risk is high soon after initiation of hemodialysis. Kidney Int. 2014;85:158–65, http://dx.doi.org/10.1038/KI.2013.252

- Russ A, Shim J, Kaufman S. The value of "life at any cost": talk about stopping kidney dialysis. Soc Sci Med. 2007;64:2236–47, http://dx.doi.org/10.1016/J. SOCSCIMED.2007.02.016
- 7. Maduell F, Broseta JJ. Dosis de hemodiálisis. En: Lorenzo V, López-Gómez JM. (eds). Nefrología al día. Available from: https://www.nefrologiaaldia.org/597.
- Borràs Sans M, Ponz Clemente E, Rodríguez Carmona A, Vera Rivera M, Pérez Fontán M, Quereda Rodríguez-Navarro C, et al. Clinical guideline on adequacy and prescription of peritoneal dialysis. Nefrologia (Engl Ed). 2024;44:1–27, http://dx. doi.org/10.1016/j.nefroe.2024.09.001

Alba Santos García (pa.*, Sandra Lizeth Castro Molanoa, Jose Andrés Meanab

- ^a Servicio de Nefrología, Hospital General Universitario Dr. Balmis, Alicante, Spain
- ^b Servicio de Oncología, Hospital General Universitario Dr. Balmis, Alicante, Spain
- * Corresponding author.

E-mail address: albasantosgarcia@gmail.com (A. Santos García).