

The study is ongoing, but the participation is still open for all interested centers. In fact, one of the middle-term objectives is to have a registry available, representative of current quality standards in Spain. At this moment we possess modules of indicators measurement, developed by the main computer programs employed in hemodialysis like Nefrosoft® (Visualimes) and Renalsoft® (Baxter), and others that are being developed like Nefrolink®. With them it is easy to share the results.

We agree with all the suggestions made by the group of Alcoy. Our intention is to progressively change both the indicators and the standards, as well as the monitoring periods, in such a way that at the end they fit to our every-day practice. Some defined standards are probably too ambitious but we hope that the multicentric study will help to adjust them to the daily routine. For example, in the multicentric study the mean of the percentage of patients with Hb values > 11 g/dL was  $81.24 \pm 9.97$  (similar to what Dr. del Pozo et al. propose) and the mean of the superior quartile was 93.2%. The mean percentage of patients with Hb > 13 g/dL was 20% of

the total sample (3142 patients) with a big inter-center variability. The aim is to maximize the percentage of patients with Hb values in a range between 11 and 12 g/dL. Considering the last recommendations we agree that it is necessary to include among the indicators the percentage of patients with Hb values > 13 g/dL.

We also agree that phosphorus levels should be frequently measured, and it seems logical that this measurement should be as frequent as, or even more frequent than, PTH determination. In fact, in the indicators module and in our study the periodicity for phosphorus determination was established on monthly base. The preliminary data from the multicentric study for these indicators were: 1) compliance with PTH standard (between 150 y 300 pg/mL)  $32\% \pm 10.9\%$ , with some centers reaching 46%; 2) compliance with phosphorus standard (< 5.5 mg/dL) 70.8%, with a maximum of 84.4%.

With respect to the last issue about the inclusion of the blood pressure measurement as a priority indicator, we would like to explain, that it was not initially included because the standard of this indicator is not yet enough clear.

In a recent study (1) the achievement of the blood pressure objective (BP < 140/90) in patients in hemodialysis was associated with a higher mortality risk, while achievement of other indicators yielded favorable results. We conclude that the objective for the BP is extrapolated from those in the general population, and that randomized controlled studies are needed to identify the optimal blood pressure value in patients on hemodialysis.

In summary, this matter is open to discussion, and in permanent change. Every proposed indicator can only be used as an orientation. With the results of the multicentric study and also with the different inputs, the quality indicators monitoring system will be progressively defined.

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## B) CLINICAL EXPERIENCES AND BRIEF CLINICAL REPORTS

### AA Amyloidosis due to renal cell carcinoma in a horseshoe kidney

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**To the editor:** The development of tumors on horseshoe kidneys is very rare. The most frequent tumor in this setting is the renal cell carcinoma, a genitourinary neoplasm that is commonly accompanied by a paraneoplastic syndrome. Amyloidosis is one of the manifestations of this syndrome.

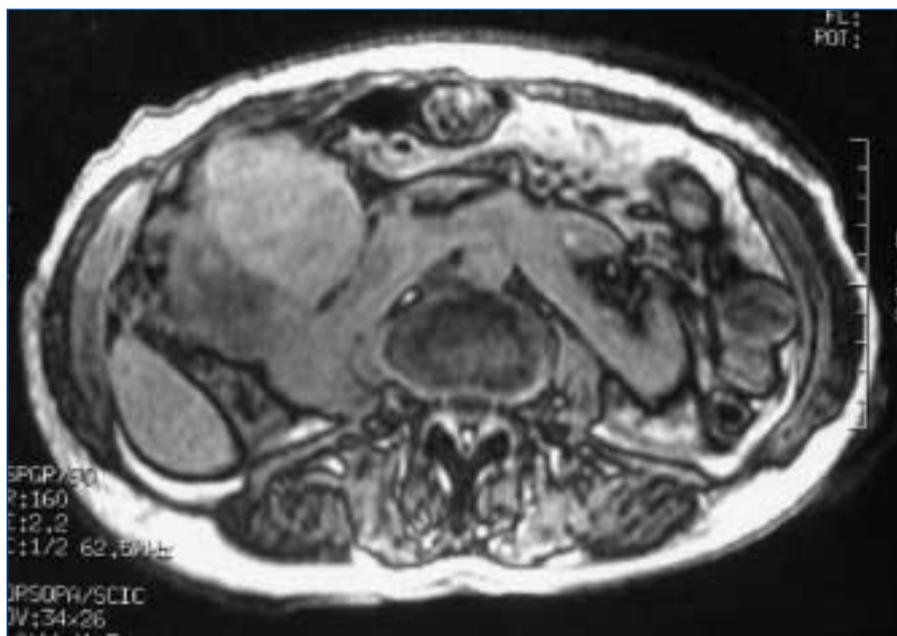
We present a 69 year-old woman with a history of hypothyroidism and horseshoe kidney, in which a hypernephroma developed (fig. 1). The disease

was diagnosed in another department and the patient was scheduled for surgery. She came to the Emergency Room because of edemas and malaise and she was admitted to the hospital. The laboratory parameters were: hemoglobin 11,1.4 g/dL; normal MCV; prolonged coagulation times, creatinine 4.9 mg/dL; urea 142 mg/dL, total proteins 4.7 g/dL; calcium 8 mg/dL, mild metabolic acidosis; proteinuria > 4 g/24 hours, important hematuria and leukocyturia.

Renal failure and nephrotic syndrome persisted for several weeks. The intervention was postponed for one month because of paroxysmal atrial fibrillation. A right nephrectomy was performed, as the kidney was irrigated by three arteries. A wedge of the he-

althy kidney was taken for microscopic study. The pathological study confirmed the hypernephroma and disclosed the presence of AA amyloidosis AA in the contralateral kidney. The postoperative course was without complications, but the renal function kept on worsening. A few days later the patient had seizures and the cranial CT scan revealed a hyperdense image in the right occipital lobule compatible with hemorrhage, without mass effect, which suggested the presence of an amyloid angiopathy.

The clinical picture evolved with increasing malaise, asthenia, anorexia, continuing vomiting and anemia. The patient presented an episode of melena and an urgent endoscopy was performed, which disclosed esophageal lacer-



**Figure 1.** Magnetic resonance image, that shows a hypernephroma.

ration, that was sclerosed with adrenalin. A clinical picture of high fever with pancytopenia developed and *Streptococcus* was isolated in the blood culture. The patient presented bleeding from a sacral ulceration and the surgical wound and died in a few hours.

The horseshoe kidney is a frequent fusion anomaly. The kidney is irrigated by one renal artery in one third of the cases. In the remaining cases, duplicated or even triplicated renal arteries can be found.<sup>1</sup> Although the association with tumors is rare,<sup>2,3</sup> some cases of hypernephroma have been reported, as well as of transitional cell carcinomas, squamous cell carcinoma, Wilms tumors, lymphomas, carcinoid tumors and sarcomas.<sup>4,5</sup>

10%-40% of the patients with hypernephroma presents a paraneoplastic syndrome, with unspecific symptoms (fever, asthenia, weight loss) or biochemical and metabolic alterations (hypercalcemia, hepatic dysfunction, hypertension or, like the reported case, amyloidosis).<sup>6-10</sup> The presence of a paraneoplastic syndrome does not mean that there is metastatic disease and, according to some authors, it does not mean a worse prognosis,<sup>6</sup> although that was not the case in our patient.

The treatment of the renal cell carcinoma is always surgical, and consists in partial or total nephrectomy.<sup>11</sup> It is im-

portant to be aware of the manifestations of the paraneoplastic syndrome, as they can constitute the clinical picture at presentation or in case of recurrence.<sup>6</sup>

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## Emphysematous cystitis in a patient with renal transplant

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### Summary

We describe a renal transplant patient who developed an abdominal pain in the hypogastric area and a urinary tract infection. An abdominal RX, and later, a computerized tomography showed an air collection in the bladder wall. Emphysematous cystitis is a rare complication of the urinary tract infection, more frequently in patients with diabetes mellitus. It is important to treat it since the beginning, so we can avoid several complications.

### Resumen

Describimos el caso de una paciente trasplantada renal que desarrolla un dolor abdominal hipogástrico y una infección urinaria. Tras realizarse una radiografía abdominal y, posteriormente, una tomografía axial computerizada, se observó una colección de aire en la pared vesical. La cistitis enfisematosa es una rara complicación de la infección urinaria, más prevalente en pacientes con diabetes mellitus. Es importante tratarlo a tiempo para evitar posibles complicaciones.

**To the editor:** We present a 69 year-old woman who had a renal transplant and with 11-year history of type 2 diabetes mellitus and visceral involvement (retinopathy and nephropathy). She also had high blood pressure and chronic renal insufficiency secondary to