cytomegalovirus disease in solid-organ transplant recipients. Clin Infect Dis. 2008;47:702–11.
3. Ljungman P, Griffiths P, Paya C. Definitions of cytomegalovirus infection and disease in transplant recipients. Clin Infect Dis. 2002;34:1094–7.
4. Tong CY, Cuevas LE, Williams H, Bakran A. Prediction and diagnosis of cytomegalovirus disease in renal transplant recipients using qualitative and quantitative polymerase chain reaction. Transplantation. 2000;69:985–91.
5. Franco A, Serrano R, Gimeno A, de Juan J, Merino E, Jiménez del Cerro L, et al. Estudio de carga viral y antigenemia como valores predictivos de recidiva de infección de CMV en el trasplante renal. Nefrologia. 2007;27:202–8.
6. Roncero García-Escribano O, Legaz Huidobro M, Bernardos E, Sánchez Manajavacas N. Reactivación de CMV: ¿dónde está el límite del diagnóstico? Enfermedad inflamatoria intestinal al día. 2012;11:118–24.
7. Franco-Esteve A, Tordera-Fuentes D, Balibrea-Lara N, Merino E, del Pozo C, Olivares J. Enfermedad tardía gastrointestinal por citomegalovirus con carga viral indetectable, un nuevo reto en trasplante renal. NefroPlus. 2013;5:15–8.

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Hidden renal disease in the elderly is no longer buried after 10 years of follow up☆

Enfermedad renal «oculta» en ancianos: ¿deja de ocultarse a los 10 años de seguimiento?

Dear Editor,

Occult renal disease (ORD) is defined as the presence of a glomerular filtration rate <60 ml/min, along with normal serum creatinine levels. Only few studies have been aimed to understand what is the long term outcome of patients diagnosed with ORD. Here we report our 5-year follow-up results, concluding that the serum creatinine levels remained normal with reduced glomerular filtration rate (<60 ml/min/1.73 m^2), with no significant variations as compared with baseline.[1] In this letter we analyse the results of long-term follow-up.

In the study "Elderly People with Chronic Kidney Disease at Hospital General de Segovia", which included 80 elderly patients recruited between January and April 2006. In 38 patients the serum creatinine levels was normal (≤1.1 mg/dl).[2] Those patients diagnosed with ORD were followed during a 10 year period.

Eighteen out of the 80 patients (22.5%), had ORD, they all were women and the mean age was 81.33 ± 6 years. Diabetics were 33.3% and 83.3%had hypertension. Twelve of these 18 patients with ORD died during follow-up. The remaining 6 patients had a mean age of 87.33 ± 6 years at 10 years. They also had no episodes of heart failure or ischaemic heart disease during the course of the study. None of the 18 patients progressed from kidney disease to end-stage kidney disease, so did not require renal replacement therapy.

Baseline and 10-year laboratory test data are shown in Table 1.

We consider that 10-year follow-up period is sufficient for kidney disease to manifest clinical signs; our elderly female patients who are still alive continue to present with the same characteristics as those at baseline, i.e., a glomerular filtration rate <60 ml/min/1.73 m^2, stable, as the *only renal manifestation*,

Table 1 – Data at baseline and after 10 years of follow-up of 6 patients diagnosed with occult renal disease who are still alive.

	Baseline	Ten years	*p* value
Creatinine (mg/dl)	1.01 ± 0.04	1.01 ± 0.23	NS
Glucose (mg/dl)	129.00 ± 34	129.40 ± 52	NS
Potassium (mmol/l)	4.18 ± 0.38	4.86 ± 0.60	0.018
Calcium (mg/dl)	9.56 ± 0.42	9.30 ± 0.77	NS
Haematocrit (%)	40.30 ± 4	39.13 ± 6	NS
MDRD (ml/min/1.73 m^2)	56.01 ± 2	58.12 ± 17	NS

NS: not significant.

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with serum creatinine levels that remain normal. They do not present other manifestations of kidney disease, such as anaemia or hypocalcaemia. On the other hand, those who are still alive at 10 years have a mean age above the current life expectancy for women,[3] have been asymptomatic in terms of heart disease, and have not progressed from kidney disease to end-stage kidney disease. As a result, we consider them to be an example of *healthy* people, and yet they are diagnosed as *sick* based on the ORD concept.

In conclusion, our elderly patients do not have a hidden kidney disease. The ORD concept should not be used to describe a reduction of GFR in elderly women with normal serum creatinine levels.

REFERENCES

1. Heras M, Guerrero MT, Sow A, Muñoz A, Ridruejo E, Fernández-Reyes MJ. Enfermedad renal oculta en ancianos: ¿continua oculta a los cinco años de seguimiento? Nefrologia. 2015;35:340–6.
2. Heras M, Fernández-Reyes MJ, Sánchez R, Guerrero MT, Molina A, Rodríguez MA, et al. Ancianos con enfermedad renal crónica: ¿qué ocurre a los cinco años de seguimiento? Nefrologia. 2012;32:300–5.
3. Tablas de mortalidad de la población de España por año, sexo, edad y funciones. Available from: http://www.ine.es [accessed 15.9.16].

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Acute kidney injury secondary to diarrhea caused by "sprue-like" enteropathy associated with olmesartan

Daño renal agudo secundario a diarrea debido a enteropatía "sprue-like" asociada al olmesartan

Dear Editor,

Olmesartan is an angiotensin II receptor antagonist used for managing hypertension. Despite being an effective and secure drug, several reports have shown that olmesartan treatment can induce "sprue-like" enteropathy.[1] Histological studies of kidney tissue from patients have often shown duodenal villous atrophy, increased intraepithelial lymphocytes and collagen depositions.[2] The pathophysiological mechanisms causing the olmesartan-induced sprue-like enteropathy (OSLE) are not fully elucidated, but recent observations suggest a cell-mediated hypersensitivity reaction[3] possibly related to the haplotype DQ2/DQ8.[4] Persistent diarrhea often accompanies enteropathy due to olmesartan use, which could have an impact on renal function. Indeed, three previous reports have shown renal involvement secondary to diarrhea due to olmesartan-related enteropathy.[5–7] Here we present a series of 19 cases of enteropathy related to olmesartan. Fourteen of these patients showed acute renal failure at admission, which was reverted after rehydration and discontinuing olmesartan.

Nineteen cases (9 females; median age 70, ranging from 56 to 88 years old) of OSLE were admitted to our hospital between September 2012 and June 2016. Patients went to the hospital due to persistent diarrhea that was non-responsive to conventional treatment. Prior to admission, patients had been treated with olmesartan for an average of 30 months (9–84 months). Most patients were taking 40 mg/day olmesartan (10–40 mg/day). OSLE was diagnosed after ruling out other possible causes for enteropathy (seronegative for tissular transglutaminase antibodies) and determining that the patient fulfilled the criteria set by Rubio et al.[1] Sixteen patients needed hospitalization for a time period ranging from 1 to 35 days and one was treated in the intensive care unit. Treatment consisted of rehydration therapy and olmesartan discontinuation, which reverted the enteropathy and associated diarrhea. At the time of this publication histological analyses in 12 patients showed full tissue recovery.

None of the patients had previous history of chronic renal disease, and estimated glomerular filtrate was normal prior to injury (86.0 ± 17.4 mL/min/1.73 m^2). At admission, electrolyte imbalance was observed (Table 1) while serum creatinine was considerably higher in comparison to previous values (Figure 1). Acute Kidney Injury Network (AKIN) classification[8] showed 5 patients with no renal involvement, 3 patients at stage 1, 2 at stage 2 and 9 at stage 3. In addition, hypokalemia and metabolic acidosis was present in these patients (Table 1).