

A) COMMENTS ON PUBLISHED ARTICLES

Elderly patients with chronic kidney disease: what is the general vascular prognosis?

Nefrología 2009;29(5):486.

Dear Editor,

We read the article by M. Heras et al., which was recently published in your journal, with great interest.¹ The authors conclude that having observed a sustained reduction in glomerular filtration (GF) in elderly subjects without proteinuria, it is now possible to reassure these kinds of patients facing the epidemic of chronic kidney disease (CKD).

In this respect, we agree with the authors' conclusion, however we would like to highlight some important considerations:

- a) In the series studied, the elderly patients with a mortality greater than 24 months presented a higher frequency of episodes of heart failure (HF) compared with those who survived during the follow up (37.5 compared with 15%; $p = 0.045$ respectively). Of this subgroup of patients with HF, we do not know from the results of this study what the rate of GF (GFR) was, nor do we know the level of proteinuria. Similarly, recent studies, like the CHARM trial, show that over 50% of patients with HF present macroalbuminuria, with a GFR > 60ml/min per 1.73m². Furthermore, the presence of albuminuria in these subjects was an independent predictor of mortality in this group of patients independent of GFR and creatinine levels.²
- b) With regard to the prognostic factors associated with higher mor-

tality, ischaemic heart disease was the determining factor in the logistic regression analysis. Consequently, it is worth highlighting that in the population described by Heras et al., the patients in group 2 (with creatinine levels >1.1mg/dl) were almost three times more likely to have history of ischaemic heart disease than those in group 1 (Cr <1.1) (21.4 versus 7.9%). Similarly, the number of deaths in group 2 was double that in group 1 (12 versus 6). Although these differences were not statistically significant, they suggest a trend that could be analysed more reliably in a larger population sample.

- c) From the sample of patients included in this study, 77% of them were hypertensive and practically one third were diabetics. Over 20% of the sample had presented a previous cardiovascular event and therefore, if they were stratified according to the Pulmonary Arterial Hypertension Guidelines published by the European Society of Cardiology (2007), they would be considered high vascular risk patients, independent of their GFR or presence of albuminuria.³ Therefore, although patients preserve their kidney function, the mortality rate continues to be very high; in fact, 22% of patients had a two-year survival outcome in this group.
- d) Finally, we would like to highlight that, although the authors' conclusion of not referring elderly patients with sustained reduced GF unaccompanied by proteinuria or anaemia, may be correct from a nephrological point of view, it is probably necessary to check for risk factors in this population, given that the global mortality rate is very high.

1. Heras M, Fernández-Reyes MJ, Guerrero MT, Sánchez R, Muñoz A, Macías MC, et al. Elderly patients with chronic kidney disease: what happens after 24 months of follow-up? *Nefrología* 2009;29(4):343-9.
2. Jackson CE, Solomon SD, Gerstein HC, Zetterstrand S, Olofsson B, Michelson EL, et al.; CHARM Investigators and Committees. Albuminuria in chronic heart failure: prevalence and prognostic importance. *Lancet* 2009;15:543-50.
3. Mancia G, De Backer G, Dominiczak A, Cifkova R, Fagard R, Germano G, et al. 2007 Guidelines for the management of arterial hypertension: The Task Force for the Management of Arterial Hypertension of the European Society of Hypertension (ESH) and of the European Society of Cardiology (ESC). *Eur Heart J* 2007;28(12):1462-536.

N. Muñoz Rivas, M. Méndez Bailón

Department of Internal Medicine.
Infanta Leonor Hospital. Madrid, Spain.

Correspondence:

Manuel Méndez Bailón

Servicio de Medicina Interna.

Hospital Infanta Leonor. Madrid, Spain

manuel.mendez@salud.madrid.org

Bariatric surgery for obese patients with proteinuria

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Dear Editor,

With regard to the article on bariatric surgery in patients with morbid obesity-associated FSG,¹ I would like to share with you the clinical case of a 60-year-old, obese, male patient with Alport syndrome who underwent this procedure.

Case report

This is the case of a 60-year-old male patient with Alport syndrome, microhaematuria and proteinuria 4g/day, creatinine 2mg/dl, urea

123mg/dl, moderate loss of hearing, arterial hypertension treated with enalapril 20mg, obesity and a BMI of 36.26 (weight 120kg, height 1.81m), altered fasting glucose (below 126mg/dl), normal glycosylated Hb, and dyslipidaemia and hiperuricaemia undergoing treatment. The patient was an ex-smoker who used to smoke one packet a day. His thyroid levels were normal. A kidney biopsy was carried out in 1995: OM (12 glomerules) focal and segmentary sclerosis evolving into sclerosing glomerulopathy, IF with mild intensity IgM mensajal nephropathy and IgA and IgM in tubular cylinders. EM 2 glomerules. Irregular capillary BM thickening and focal splitting of the lamina densa. Total podocyte pedicel fusion. In one sector, there was effacement of the glomerular structure with an electron

dense deposit of abundant amorphous material. The alteration in the lamina densa indicated Alport disease, the rest of the findings indicated focal sclerosing glomerulonephritis. Kidney ultrasound: RK 95.6 x 52 x 53, LK 99 x 51 x 52. No abnormalities were detected in the kidney Doppler.

A low protein, low calorie diet was recommended and a 75mg/day dose of losartan was added to the treatment regimen (the maximum amount tolerated by the patient). A very slight reduction in the level of proteinuria to 3.6g/day was observed. Gastric by-pass surgery was carried out and a total reduction in weight of 36kg was observed with the patient reaching a BMI of 25.6. Nephrological tests: creatinine 1.56mg/dl, proteinuria 0.3g/day, urea 65mg/dl and normal blood pressure with enalapril 5mg/d; the

minimum dose of lipid reducing drugs was maintained, uricaemia and glycaemia were normal.

In the three years after surgery, the patient made good progress thanks to treatment adherence (diet), aerobic exercise and clinical and psychological support.

1. Ramírez J, Carpio D, Mezzano S, Mukdsi J, Ardiles L. Cirugía bariátrica en pacientes con glomerulosclerosis focal y segmentaria secundaria a obesidad. *Nefrología* 2009;29(3):266-9.

L. Roberto León

Institute of Nephrology, Buenos Aires, Argentina.

Correspondence:

Luis Roberto León

Instituto de Nefrología Sa Buenos Aires.

Buenos Aires. Argentina.

lleon@intramed.net.ar

B) BRIEF PAPERS ON BASIC AND CLINICAL RESEARCH

Iatrogenic hyperpotassaemia in elderly patients with hidden kidney failure in Primary Care

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Dear Editor,

One of the practical applications of estimating glomerular filtration (GF) using formulas is the possibility of being able to adapt the prescription for patients with hidden chronic kidney disease,¹ thereby avoiding potential iatrogenic complications, with potential to induce hyperpotassaemia.²

By means of a randomized sampling process, we selected a population made up of 4,014 patients over the age of 65 from the Spanish province of Huesca, who were seen in health centres with the OMI-AP IT system (Primary Care IT Organisation and Management, Stacks @), which allowed us to check the prescriptions. After excluding cer-

tain patients for different reasons, we established the GF using the abbreviated MDRD formula for 3,286 subjects. As a result, we detected 291 patients with hidden kidney failure (normal serum creatinine levels and an estimated GF < 60ml/min/1.73m²). We recorded the active ingredients prescribed by the general practitioners of 269 patients for acute or chronic conditions during a 12 month period (2007). Within this group, 211 patients (72.5%) were exposed to drugs, either alone or in combination, that could favour hyperpotassaemia. The mean serum potassium for the 211 patients was 4.553 ± 0.52meq/L (CI 95% 4.48-4.62) (median 4.6) (range 3.1-6). If we consider hyperpotassaemia³ levels above 5meq/l, the results indicate that thirty of the 211 patients presented this condition during the 12 month follow up. Table 1 shows the different drugs prescribed to these patients along with the serum potassium levels of each subgroup. The most common combination was NSAID with ACE inhibitors or ARA II. In monotherapy, NSAID were the drugs that were most

commonly associated with hyperpotassaemia. Because of the design of the study, an individualised follow up of the patients was not carried out in order to determine whether there were any clinical consequences of the hyperpotassaemia. Nevertheless, the fact that this may have occurred in extreme cases should not be ruled out (seven patients had blood potassium levels of 5.7meq/l or higher).

Our study highlights the importance of correct dosage adjustment and prescription checks carried out by the professional to verify the use of certain drugs in patients with chronic kidney disease, which could remain undetected if only creatinine levels are estimated.⁴ Fortunately, GF estimation using MDRD has been available in our province for a few months now. In the same way that pharmacies in some hospitals in Spain issue a series of warnings when a potentially dangerous drug is prescribed to patients admitted with reduced GF, it would be good if a similar system were introduced in Primary Care. For example,