from this research suggest achieving adequate erythropoiesis when treating with IV Fe, reducing iatrogenic sequelae,[4,5] and keeping the maximum FER greater than or less than and close to 300μg/l. Based on current evidence,[6] it would be advisable to treat intermittently with low dose Fe.

1. K/DOQI clinical practice guidelines and clinical practice recommendations for anemia in chronic kidney disease in adults: CPG and CPR 3.2: Using iron agents. Am J Kidney Dis 2006;47(Suppl 3):S58-S70.
2. Coyne DW, Kapoian T, Suki W, Singh AK, Moran JE, Dahl NW, et al, and the DRIVE Study Group. Ferric gluconate is highly efficacious in anemic hemodialysis patients with high serum ferritin and low transferrin saturation: Results of the dialysis patients response to IV iron with elevated ferritin (DRIVE) study. J Am Soc Nephrol 2007;18:975-84.
3. Singh AK, Coyne DW, Shapiro W, Rizkala AR, the DRIVE Study Group. Predictors of the response to treatment in anemic hemodialysis patients with high serum ferritin and low transferrin saturation. Kidney Int 2007;71:1163-71.
4. Canavese C, Bergamo D, Ciccone G, Longo F, Fop F, Thea A, et al. Validation of serum ferritin values by magnetic susceptometry in predicting iron overload in dialysis patients. Kidney Int 2004;65:1091-8.
5. Bishu K, Agarwal R. Iron deficiency in the 2006 K/DOQI era: Acute injury with intravenous iron and concerns regarding long-term safety. Clin J Am Soc Nephrol 2006;1(Suppl 1):S19-S23.
6. Anraku M, Kitamura K, Shintomo R, Takeuchi K, Ikeda H, Nagano J, et al. Effect of intravenous iron administration frequency on AOPP and inflammatory biomarkers in chronic hemodialysis patients: A pilot study. Clin Biochem 2008;41:1168-74.

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C) BRIEF CASE REPORTS

Methoxy polyethylene glycol-epoetin beta in the treatment of a patient with chronic kidney disease presenting late-onset hypersensitivity to other epoetins

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Dear Editor,

Methoxy polyethylene glycol-epoetin beta (Mircera®) is a recombinant erythropoietin that, just like natural erythropoietin, stimulates red blood cell production and increases blood levels of haemoglobin, by interacting with the erythropoietin receptors on marrow progenitor cells, thus resulting in continuous activation.[1-3]

We present the case of a patient with Stage 5 chronic kidney disease (CKD) who had a delayed hypersensitivity reaction on two recombinant erythropoietins. In August 2004, treatment was started with epoetin beta (Neorrecormon©) subcutaneously. Six months later the patient developed pruritus and generalised micropapular lesions in direct relation to the weekly administration of this anti-anaemic medication. The patient was then treated with darbepoetin alpha (Aranesp®) subcutaneously, and, starting with the first dose, developed a similar skin reaction to that described with epoetin beta, for which the medication was suspended. In April 2006, the patient started haemodialysis, and intravenous administration of darbepoetin alpha was started and was well tolerated over several administrations. However, on two occasions, the patient developed palmoplantar pruritus and papular lesions that required withdrawal of the drug. Subsequently, the patient needed monthly red cell transfusions, due to persistent anaemia secondary to CKD. In September 2007, authorisation was requested from the Spanish Ministry of Health and Consumer Affairs for the foreign medication epoetin delta, but authorisation was refused on the grounds that there was a high probability of having a reaction to it given the patient's history. Faced with this situation, in August 2009 we decided to try pegylated epoetin beta (Mircera®), which has been registered in Spain since July 2007,[1] while monitoring for tolerance and effectiveness. Based on recommendations from the Allergy department, escalating doses (12.5, 25 and 37.5μg) of pegylated epoetin beta were administered subcutaneously at seven day intervals until reaching the final dose of 50μg (0.6μg/kg), without any adverse reaction. We continued

to administer pegylated epoetin beta at the 50μg dose, but divided into two injections (25μg) for the first three doses.

At present, and after eight fortnightly intravenous doses of pegylated epoetin beta, we can state that the patient is tolerating this treatment, maintaining sustained haemoglobin and haematocrit levels within the recommended range for stage 5 CKD on haemodialysis. In this instance, the intravenous administration of pegylated epoetin beta did not result in the appearance of any cross-reactions arising from the patient's intolerance to epoetin beta and darbepoetin alpha. Therefore, we suggest that pegylated epoetin beta may be a good alternative for treating chronic anaemia in patients with CKD and intolerance to epoetin beta and darbepoetin alpha.

1. Ficha técnica metoxi-polietilenglicol epoetina beta (Mircera®) . Available at: http://www.ema.europa.eu/humandocs/PDFs/EPAR/mircera/H-739-PI-es.pdf.
2. Committee for Medicinal Products for Human Use, European Medicines Agency. Scientific discussion. En: Mircera: European public assessment report. London: EMEA, 2007. Available at: http://www.emea.europa.eu/humandocs/PDFs/EPAR/mircera/H-739-en6.pdf
3 Center for Drug Evaluation and Research. Mircera® (methoxy polyethylene glycol-epoetin beta) [Drug Product Label] U.S. Food and Drug Administration; 2007 Nov 14. FDA Application no (NDA) 125164. Available at: http://www.fda.gov/cder/foi/label/2007/125164lbl.pdf

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Decrease in renal function due to myomatous uterus

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Dear Editor,

Acute renal failure (ARF) is a clinical syndrome characterized by a sudden decrease in the glomerular filtration rate and increased serum concentration of nitrogen products.[1,2] Obstructive ARF accounts for 10% of total ARF.[2] It is more common in elderly patients and especially in males.[2] Imaging tests, especially renal ultrasonography,[3] are essential for its diagnosis, in which dilation of the urinary tract is often seen as well as, at times, the cause of obstruction.

We present the case of a female patient, 41 years of age, with no significant past medical history, who was sent from the emergency department due to deterioration of renal function with serum creatinine (SCr) of 6.5mg/dl, in the setting of vaginal bleeding requiring transfusions. At that time, she was diagnosed with uterine fibroids by the gynaecology service. She was admitted for further work-up and a renal ultrasound was performed, showing grade IV bilateral hydronephrosis, with poor corticomedullary differentiation, but without visible ureters, for which a CT scan was performed. The CT showed grade IV bilateral ureterohydronephrosis secondary to extrinsic compression by the myomatous uterus, which measured 13 x 9cm (Figures 1 and 2). The urology service was notified, which placed a double "J" catheter in the right ureter, but was unable to place one in the left ureter. Evaluation by the gynaecology service was requested, which postponed a simple hysterectomy to the following week. Following the completion of the hysterectomy, the patient had a favourable clinical progression, but not biochemically, with SCr remaining at 4.5mg/dl 15 days after surgery. Another renal ultrasound was performed, which showed grade II hydronephrosis and poor corticomedullary differentiation, therefore a percutaneous renal biopsy was not performed. The patient was discharged with the diagnosis of grade IV chronic kidney disease, secondary to probable interstitial nephritis, with follow-up in the pre-dialysis clinic.

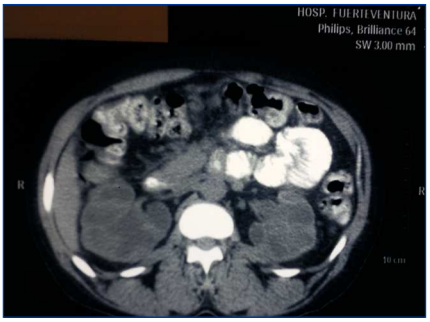

Figure 1. CT cut where bilateral hydronephrosis can be seen.

In cases of obstructive ARF, prompt resolution of the obstruction leads to complete resolution of ARF. In our case, from the time that the imaging tests were obtained, the chronicity of the process could be seen. Therefore, early diagnosis and treatment is important, since they ensure renal viability.

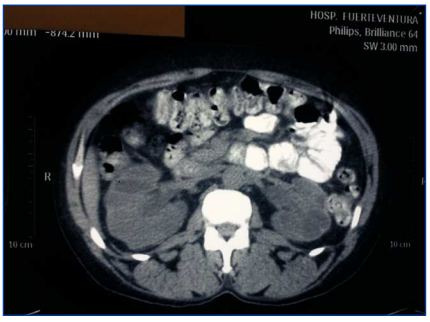

Figure 2. Lower CT cut where bilateral ureteral dilatation can be seen.