

Figure 1. Progression of creatine phosphokinase and creatinine in plasma. Patient's progression of CPK (IU/l) and creatinine in plasma (mg/dl), during the 2009-2012 period. For a better display of both graphs, creatinine values are expressed in mg/dl x 100. CPK: creatine phosphokinase.

To conclude, we should suspect metabolic myopathy in young patients who have persistently high levels of CPK associated with muscle symptoms at an early age. Its early diagnosis and recommendations based on a change of lifestyle in patients will avoid serious and systemic consequences, including rhabdomyolysis-induced ARF.

Conflicts of interest

The authors declare that they have no conflicts of interest related to the contents of this article.

- Lucia A, Ruiz J, Santalla A, Nogales-Gadea G, Rubio JC, García-Consuegra I, et al. Genotypic and phenotypic features of McArdle disease: insights from the Spanish national registry. *J Neurol Neurosurg Psychiatry* 2012;83:322-8.
- Loupy A, Pouchot J, Hertig A, Bonnard G, Bouvard E, Rondeau E. Massive rhabdomyolysis revealing a McArdle disease. *Rev Med Interne* 2007;28(7):501-3.

- Kranck S, Wacker P, Milliet N, Brünisholz M. One rare case report of acute renal insufficiency in rhabdomyolysis. *Rev Med Suisse Romande* 2002;122(11):539-41.
- McCarron DA, Royer KA, Houghton DC, Bennett WM. Chronic tubulointerstitial nephritis caused by recurrent myoglobinuria. *Arch Intern Med* 1980;140(8):1106-7.
- Quinlivan R, Beynon RJ, Martinuzzi A. Pharmacological and nutritional treatment for McArdle disease (Glycogen Storage Disease type V). *Cochrane Database Syst Rev* 2008;(2):CD003458.

Oussamah Fikri-Benbrahim¹, Fátima Cazalla-Cadenas¹, Alfonso Vadillo-Bemejo²

¹ Sección de Nefrología. Complejo Hospitalario La Mancha Centro. Alcázar de San Juan, Ciudad Real. (Spain).

² Servicio de Neurología. Complejo Hospitalario La Mancha Centro. Alcázar de San Juan, Ciudad Real. (Spain).

Correspondence: Oussamah Fikri Benbrahim. Sección de Nefrología. Complejo Hospitalario La Mancha-Centro, Alcázar de San Juan, Ciudad Real. (Spain). fikrioussamah@yahoo.fr

Acute glomerulonephritis in a patient with *de novo* occult HCV

Nefrologia 2013;33(4):606-7

doi:10.3265/Nefrologia.pre2013.Jan.11807

To the Editor:

We report the case of a 48-year-old woman, smoker, with a history of allergic rhinitis and bronchial hyperreactivity. Surgery for tonsillectomy, basal-cell carcinoma and cervical conization due to CIN II moderate dysplasia, infection due to the human papilloma virus, erosive cervicitis and squamous metaplasia. Admitted in July 2008 due to painless haematuria persisting for months, with no history of lithiasis or urinary infection. Microhaematuria (30-50 RBC/F) was confirmed with 8%-15% of dymorphias without microalbuminuria (0.15g proteinuria in 24-hour urine).

The physical examination, Ambulatory Blood Pressure Monitoring (ABPM), bladder-kidney echo-Doppler and renal angiography were normal. Bladder lesions were ruled out by cystography and the urinary cytology was negative for neoplastic cells.

Analysis: persistently high levels of IgE, IgM (220-400mg/dl) and ASLO (antistreptolysin antibodies) (330-338IU/l) were detected. Rest of autoimmunity (cryoglobulins, rheumatoid factor, IgA, IgG, C3, C4, antinuclear antibodies, antineutrophil cytoplasmic antibodies, anti-GBM antibodies, protein electrophoresis) and tumour markers were normal. Viral serology, however, showed clear negativity for hepatitis A and B (HBsAg neg, HBsAb +, HBcAc neg) and the human immunodeficiency virus, but not for hepatitis C virus (HCV), which was repeatedly inconclusive or indeterminate (immunoblotting band C1 positive; C2, E2, NS3 and NS4 negative) with negative polymerase chain reaction for classic HCV. Blood count, lipid profile, glucose, urea, creatinine, uric acid, ions,

glutamic pyruvic transaminase (GPT) and gamma-glutamyl transferase (GGT) were normal. Glutamic oxaloacetic transaminase (GOT) and total minimum bilirubin were temporarily high (32-41IU/ml and 1.42mg/dl, respectively), and subsequently remained within the normal range (<22IU/ml and <1.00mg/dl).

Percutaneous renal biopsy was performed, with the following findings (Figure 1 and 2): "Optical microscopy: nine glomeruli without sclerosis, hypertrophy or significant increase in cellularity, apart from slight mesangial proliferation of focal segmental distribution; slight diffuse increase in mesangial matrix and in some granulocyte in the flocculonodular lobe; absence of interstitial inflammatory infiltrate and pathology in the basement membrane (BM); mild focal periglomerular fibrosis. Immunofluorescence: negative for IgG, IgA, C1q, kappa and lambda chains. Glomerular IgM (+/-) with positive C3 in some Bowman's capsules. Electron microscopy: a glomerulus with an increase in mesangial matrix with BM of normal thickness and absence of electron dense deposits". The diagnosis from the pathological point of view was: "Minimal glomerular lesions, mainly mesangial."

Bearing in mind the high level of ASLO, the focal and segmental character of mesangial lesions and their coexistence with isolated neutrophilic gran-

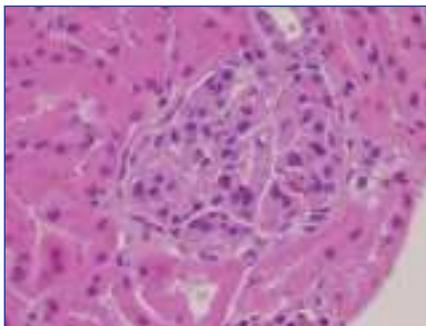


Figure 1. Renal biopsy. Haematoxylin and eosin, 40x. Mesangial expansion and granulocytes in the flocculonodular lobe.

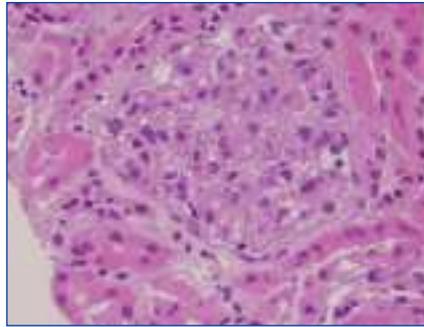


Figure 2. Renal Biopsy 2. Haematoxylin and eosin, 40x. Mesangial proliferation.

ulocytes, we considered the possibility of a previous subclinical postinfectious glomerulonephritis.

In 2010, the patient still had haematuria and the previous analytical abnormalities, without displaying outbreaks of allergies during her progression. We insisted on diagnosing HCV, with samples being sent for detection by high resolution techniques (RNA in peripheral blood mononuclear cells and RNA by ultracentrifugation in serum^{1,2}), being negative for the first but positive for the second (240 copies/ml). The FibroScan® did not detect liver disease. Liver biopsy was considered, but at present, not indicated, due to the benefit/risk balance. She reported no risk factors for HCV infection, although her medical history showed vaginal papillomavirus.

The clinical progression has been stable for four years of follow-up.

Lastly, microscopic haematuria with minimal glomerular lesions of mesangial predominance was diagnosed in a patient with occult HCV and persistently high levels of ASLO, IgM and IgE without, so far, confirming a causal relationship.³ This is the first patient to be diagnosed with occult HCV with a non-dialysis nephropathy, although the causality or relationship between factors remains to be determined. Given the history of bronchial asthma with the possibility of requiring immunosuppressant treatment,⁴ monitoring of the viral load by ultrasensitive techniques described^{1,2} is considered to be important.

Acknowledgment

We wish to thank Dr. Guillermina Barril for his knowledge about the classical occult C virus in patients on haemodialysis, which has allowed us to extrapolate this diagnosis to the rest of the patients with nephropathy.

Conflicts of interest

The authors declare that they have no conflicts of interest related to the contents of this article.

1. Bartolomé J, López-Alcorocho JM, Castillo I, Rodríguez-Iñigo E, Quiroga JA, Palacios R, et al. Ultracentrifugation of serum samples allows detection of hepatitis C virus RNA in patients with occult hepatitis C. *J Virol* 2007;81(14):7710-5.
2. Carreño V, Pardo M, López-Alcorocho JM, Rodríguez-Iñigo E, Bartolomé J, Castillo I. Detection of hepatitis C virus (HCV) RNA in the liver of healthy, anti-HCV antibody-positive, serum HCV RNA-negative patients with normal alanine aminotransferase levels. *J Infect Dis* 2006;194(1):53-60.
3. Fabrizi F, Martin P, Dixit V, Messa P. Hepatitis C virus infection and kidney disease: a meta-analysis. *Clin J Am Soc Nephrol* 2012;7(4):549-57.
4. Lee WM, Polson JE, Carney DS, Sahin B, Gale M Jr. Reemergence of hepatitis C virus after 8.5 years in a patient with hypogammaglobulinemia: evidence for an occult viral reservoir. *J Infect Dis* 2005;192:1088-92.

M. Adoración Martín-Gómez¹, Mercedes Gómez-Morales², Inmaculada Castillo-Aguilar³, M. Eugenia Palacios-Gómez¹, Vicente Carreño-García³, Sergio A. García-Marcos¹

¹ Unidad de Nefrología. Hospital de Poniente. El Ejido, Almería. (Spain).

² Servicio de Anatomía Patológica. Hospital San Cecilio. Granada. (Spain).

³ Fundación para el Estudio de las Hepatitis Virales. Madrid. (Spain).

Correspondence: M. Adoración Martín Gómez
Unidad de Nefrología.
Hospital de Poniente. Ctra. Málaga, n.º 119.
04700 El Ejido, Almería. (Spain).
doritamg@gmail.com
doritamg@mixmail.com