

in this entity is slow, its silent nature justifies the monitoring of asymptomatic young relatives, since, although there is no specific therapy, early diagnosis would allow early treatment of indolent hyperuricemia and global recommendations for nephroprotection in an attempt to slow down the onset or progression of the nephropathy.⁸⁻¹⁰

We conclude that the early detection of FJHN can lead to early treatment that delays the onset or progression of renal failure. The family study and genetic analysis in this disease are important for its definitive diagnosis since the clinic and the histopathology are not specific.

REFERENCES

1. Duncan H, Dixon AS. Gout, familial hypericaemia and renal disease. *Q J Med.* 1960;29:127-35.
 2. Cameron JS, Simmonds AH. Hereditary hiperuricemia and renal disease. *Semin Nephrol.* 2005;25:9-18.
 3. Scolari F, Caridi G, Rampoldi L, Tardanico R, Izzi C, Pirulli D, et al. Uromodulin storage diseases: clinical aspects and mechanisms. *Am J Kidney Dis.* 2004;44:987-99.
 4. Bollée G, Dahan K, Flamant M, Morinière V, Pawtowski A, Heidet L, et al. Phenotype and outcome in hereditary tubulointerstitial nephritis secondary to UMOD mutations. *Clin J Am Soc Nephrol.* 2011;6:2429-38.
 5. Coto García E. Enfermedad renal quística medular y nefronoptosis. *Nefrologia Sup Ext.* 2011;2:74-9.
 6. Vyletal P, Kublova M, Kalbacová M, Hodanová K, Baresová V, Stibůrková B, et al. Alterations of uromodulin biology: a common denominator of the generally heterogeneous FJHN/MCKD syndrome. *Kidney Int.* 2006;70:1155-69.
 7. Ayares-Fierro N, Ars-Criach E, Lopes-Martin V, Arce-Terroba Y, Ruiz del Prado P, Ballarón-Castán J, et al. Nefropatía intersticial crónica familiar con hiperurucemia causada por el gen UMOD. *Nefrologia.* 2013;33:587-92.
 8. Torres R, Martínez ARAJ, Mora M, García Puig J. Diagnóstico preclínico de la nefropatía familiar asociada a hiperuricemia. *Nefrologia.* 2006;26:382-6.
 9. Fairbanks LD, Cameron JS, Venkat-Raman G, Rinden SP, Rees L, VañT HW, et al. Early treatment with allopurinol in familial juvenile hyperuricaemic nephropathy (FJHN) ameliorates the long-term progression of renal disease. *QJM.* 2002;95:597-607.
 10. Fleeman N, Pilkington G, Dundar Y, Dwan K, Boland A, Dickson R, et al. Allopurinol for the treatment of chronic kidney disease: a systematic review. *Health Technol Assess.* 2014;18:1-77.
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<https://doi.org/10.1016/j.nefroe.2018.09.004>

Can we manage without biopsy in membranous nephropathy with positive anti-PLA2R antibodies?☆

¿Podemos prescindir de la biopsia renal en la nefropatía membranosa en caso de anticuerpos anti-PLA2R positivos?

Dear Editor,

We present the case of a 71-year-old man, hypertensive, with a 3 weeks history of edema on the eyelids and lower limbs. The following data were observed: Hematology: leukocytes: $11,700 \times 10^3 \mu\text{m}^{-3}$; hemoglobin: 12.2 g/dl, and platelets: $36,900 \times 10^3 \mu\text{m}^{-3}$. Biochemical profile: creatinine: 1.2 mg/dl; glomerular filtration rate (CKD-EPI): 60.2 ml/min; cholesterol: 325 mg/dl; HDL: 56 mg/dl; LDL: 238 mg/dl, and calcium: 10.2 mg/dl. In 24 h urine: proteinuria: 13,530 mg with

microhematuria. Immunology w/u without hypocomplementemia, mild decrease in immunoglobulin G. Rheumatoid factor, anti-nuclear antibodies, anti-neutrophil cytoplasm antibodies, anti-glomerular basement membrane antibodies were negative and there were positive only the anti-PLA2r antibodies 1/160. In the ultrasound study: normal kidneys without vascular or parenchymal damage, ruling out obstruction. The study of possible secondary causes with serologies of hepatitis B, C and HIV negative viruses, chest X-ray and

DOI of original article:
<https://doi.org/10.1016/j.nefroe.2018.07.003>.

☆ Please cite this article as: Ruiz Martínez L, Fernández Fresnedo G, Rodrigo E, Heras M. ¿Podemos prescindir de la biopsia renal en la nefropatía membranosa en caso de anticuerpos anti-PLA2R positivos? *Nefrologia.* 2019;39:311-312.

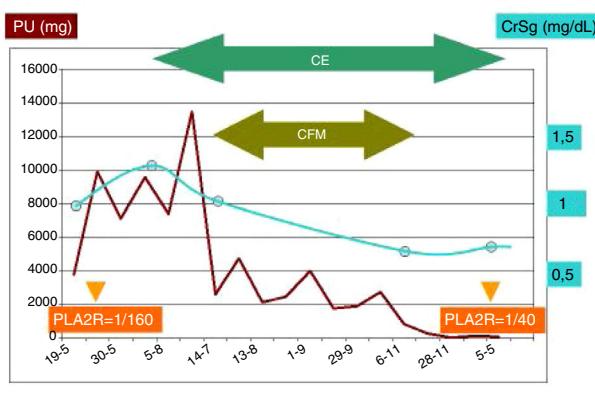
Glomerulonefritis membranosa no biopsiada

Fig. 1 – Evolution of renal function, proteinuria and its immunological marker (anti-PLA2R antibody) after immunosuppressive treatment.

abdominal ultrasound without data suggestive of neoplasia, echocardiogram without data of endocarditis and Bence-Jones proteinuria negative was completed. It was decided to perform a renal biopsy, but the previous day began with dry cough, dyspnea and desaturation (90%), so a lung scan was performed in which pulmonary thromboembolism was observed, anticoagulation was started and no renal biopsy could be performed. With these data and given the positivity of M-type phospholipase A2 receptor antibodies (anti-PLA2R), a diagnosis of possible membranous nephropathy was made and empirical treatment was decided with corticosteroids and oral cyclophosphamide with favorable response of the nephrotic syndrome and complete remission (Fig. 1).

Primary membranous nephropathy, a frequent cause of nephrotic syndrome, is an antibody-mediated glomerular disease. Since 2009, in which Beck discovered the antigen involved, PLA2R, there have been multiple advances on the diagnostic value and predictive power of PLA2R.^{1,2} Anti-PLA2R antibodies are present in 70–80% of primary membranous nephropathies (in podocytes, formed *in situ* together with IgG),^{1,3} in a 5–10% of cases there is another antibody involved, thrombospondin (THSD7A), and in the rest of patients the causal antibody remains to be identified.⁴

The presence of anti-PLA2R antibodies has a sensitivity higher than 70%, and a specificity of almost 100% for the diagnosis of membranous nephropathy.^{4–6} The severity of the disease is associated to higher level of AB, with greater proteinuria and less possibility of spontaneous remission.^{2,7–10} In addition, the level of anti-PLA2R antibodies may serve as a biological marker, since the immune response precedes the appearance of proteinuria and the reduction of antibodies is often seen before the resolution of proteinuria.^{1,2,4,6,8–10} Thus, the presence of anti-PLA2R antibodies in serum has been considered a signal of active disease suggesting early immunosuppressive treatment without the need to complete the 6 months of support treatment.^{4–10} The high specificity of these antibodies has already posed the possibility of assuming an accurate diagnosis and especially in those cases, such

as ours, in which there is a very high or unacceptable risk of performing a renal biopsy.^{4,6,7}

Finally, in terms of treatment, good results have always been obtained with the combination of corticosteroids and cyclophosphamide.

REFERENCES

- Beck LH Jr, Bonegio RG, Lambeau G, Beck DM, Powell DW, Cummins TD, et al. M-type phospholipase A2 receptor as target antigen in idiopathic membranous nephropathy. *N Engl J Med.* 2009;361:11–21.
- Hofstra JM, Beck LH Jr, Beck DM, Wetzels JF, Salant DJ. Anti-phospholipase A2 receptor antibodies correlate with clinical status in idiopathic membranous nephropathy. *Clin J Am Soc Nephrol.* 2011;6:1286–91.
- Debiec H, Ronco P. PLA2R autoantibodies and PLA2R glomerular deposits in membranous nephropathy. *N Engl J Med.* 2011;364:689–90.
- Francis JM, Beck LH Jr, Salant DJ. Membranous nephropathy: a journey from bench to bedside. *Am J Kidney Dis.* 2016;68:138–47.
- Hoxha E, Kneissler U, Stege G, Zahner G, Thiele I, Panzer U, et al. Enhanced expression of the M-type phospholipase A2 receptor in glomeruli correlates with serum receptor antibodies in primary membranous nephropathy. *Kidney Int.* 2012;82:797–804.
- Ronco P, Debiec H. Pathophysiological advances in membranous nephropathy: time for a shift in patient's care. *Lancet.* 2015;385:1983–92.
- Ruggenenti P, Debiec H, Ruggiero B, Chianca A, Pellé T, Gaspari F, et al. Anti-phospholipase A2 receptor antibody titer predicts post-rituximab outcome of membranous nephropathy. *J Am Soc Nephrol.* 2015;26:2545–58.
- Kanigherla D, Gummadiova J, McKenzie EA, Roberts SA, Harris S, Nikam M, et al. Anti-PLA2R antibodies measured by ELISA predict long-term outcome in a prevalent population of patients with idiopathic membranous nephropathy. *Kidney Int.* 2013;83:940–8.
- Schlumberger W, Hornig N, Lange S, Probst C, Komorowski L, Fechner K, et al. Differential diagnosis of membranous nephropathy with autoantibodies to phospholipase A2 receptor 1. *Autoimmun Rev.* 2014;13:108–13.
- Hoxha E, Thiele I, Zahner G, Panzer U, Harendza S, Stahl RA. Phospholipase A2 receptor autoantibodies and clinical outcome in patients with primary membranous nephropathy. *J Am Soc Nephrol.* 2014;25:1357–66.

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<https://doi.org/10.1016/j.nefroe.2018.07.013>