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- Rosenberg ME. Adult nephrology fellowship training in the United States: trends and issues. *J Am Soc Nephrol* 2007;18(4):1027-33.
- Rivera M, Quereda C. Nefrología diagnóstica e intervencionista: una oportunidad para los nefrólogos españoles. *Nefrología* 2011;31(2):131-3.
- Martínez Castela A. La necesidad de formación continuada en Nefrología. El porqué de actualizaciones. *Nefrología* 2011;Supp Ext 2(5).

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C4d as a diagnostic tool in membranous nephropathy

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To the Editor,

In a recent issue of *Nefrología* (vol. 32, issue 3, 2012), Espinosa-Hernandez et al. published a study titled “*C4d como herramienta diagnóstica en la nefropatía membranosa*” (C4d as a diagnostic tool in membranous nephropathy).¹ In the introduction, the authors pointed out that the information regarding C4d deposition in glomerular nephropathies is very scarce, and set the objective of their study to determine whether immunohistochemical detec-

tion of C4d in patients with membranous nephropathy (MN) could be useful as a diagnostic tool. In the discussion, they pointed out that the information on the role of C4d in MN is limited to a single study of 12 patients using immunofluorescence, published in 1989.² They concluded their study by indicating that C4d detection using immunohistochemistry is a very useful tool for the differential diagnosis of MN and minimal change disease.

However, Espinosa-Hernandez et al omitted our publication titled “C4d immunohistochemical staining is a sensitive method to confirm immunoreactant deposition in formalin-fixed paraffin-embedded tissue in membranous glomerulonephritis”.³ In this article, we showed that there was a characteristic glomerular, granular C4d deposit in the basal membrane in 31 cases (100%) with idiopathic MN and in 5 cases (100%) with pure membranous lupus nephritis, class V, following fixation in formalin, paraffin embedding, and immunoperoxidase-based detection. In all cases, the previous diagnosis of lesions was made by immunofluorescence. In addition, in 19 cases with different glomerulonephropathies, including IgA nephropathy, membranoproliferative glomerulonephritis type I, focal segmental glomerulosclerosis, and minimal change disease, we found several reproducible patterns of C4d deposits, without intrinsic background staining. Our results showed that C4d staining in tissues fixed in formalin and embedded in paraffin can be used to detect membranous granular deposits of complement factor in MN. This method proved to be so reliable that it might obviate the need for further biopsies when glomeruli in frozen slides or ultrafine slides for electron microscopy are not available. We concluded our article by indicating that immunostaining using the immunoperoxidase method deserves recognition as a complementary method for the biopsy-based diagnosis of MN.

We would like to see our article receive the recognition it deserves.

Conflicts of interest

The authors affirm that they have no conflicts of interest related to the content of this article.

- Espinosa-Hernández M, Ortega-Salas R, López-Andreu M, Gómez-Carrasco JM, Pérez-Sáez MJ, Pérez-Seoane C, et al. C4d como herramienta diagnóstica en la nefropatía membranosa. *Nefrología* 2012;32:295-9.
- Kusunoki Y, Itami N, Tochimaru H, Takekoshi Y, Nagasawa S, Yoshiki T. Glomerular deposition of C4 cleavage fragment (C4d) and C4-binding protein in idiopathic membranous glomerulonephritis. *Nephron* 1989;51:17-9.
- Val-Bernal JF, Garijo MF, Val D, Rodrigo E, Arias M. C4d immunohistochemical staining is a sensitive method to confirm immunoreactant deposition in formalin-fixed paraffin-embedded tissue in membranous glomerulonephritis. *Histol Histopathol* 2011;26:1391-7.

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Author's reply: C4d as a diagnostic tool in membranous nephropathy

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To the Editor,

Dr. Fernando Val-Bernal and his collaborators commented that we have