



# A rare cause of full-house membranous glomerulopathy in an infant: Questions

Erica Elizabeth Faure<sup>1</sup> · Leonela Noriega<sup>1,2</sup> · Claudia Seminara<sup>3</sup> · Gisella Carranza<sup>4</sup> · Mónica Herrero<sup>5</sup> · Jorge Humberto Mukdsi<sup>1,2</sup>

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## Case report

A 4-month-old girl presented macroscopic hematuria and positive COVID-19 (IgG positive and IgM negative). On admission, laboratory investigations demonstrated urea and serum creatinine values of 21 mg/dl and 0.65 mg/dl, respectively. The direct Coombs test was negative. The urinalysis showed the following: hematuria, 50 RBCs/high power field, pyuria, hemoglobin (+++), and proteinuria (122 mg/m<sup>2</sup>/day). Her kidney ultrasonography was normal, but an abdominal ultrasonography revealed mild hepatomegaly and splenomegaly.

A kidney biopsy (Fig. 1) was performed and demonstrated mild mesangial expansion of 10 glomeruli and normal basement membrane thickness. Immunofluorescence

studies showed glomerular staining simultaneously positive for IgG, IgA, IgM, C3, and C1q. At the ultrastructural level, subpodocyte and mesangial electron dense deposits were observed. A diffuse effacement of the podocyte foot processes was observed.

## Questions

1. What further tests should be done to confirm the diagnosis?
2. Which is the most likely anatomopathological diagnosis? What are the pathological differential diagnoses? What about the full-house pattern?
3. What could be the etiology of glomerulopathy? How should this clinical condition be treated?

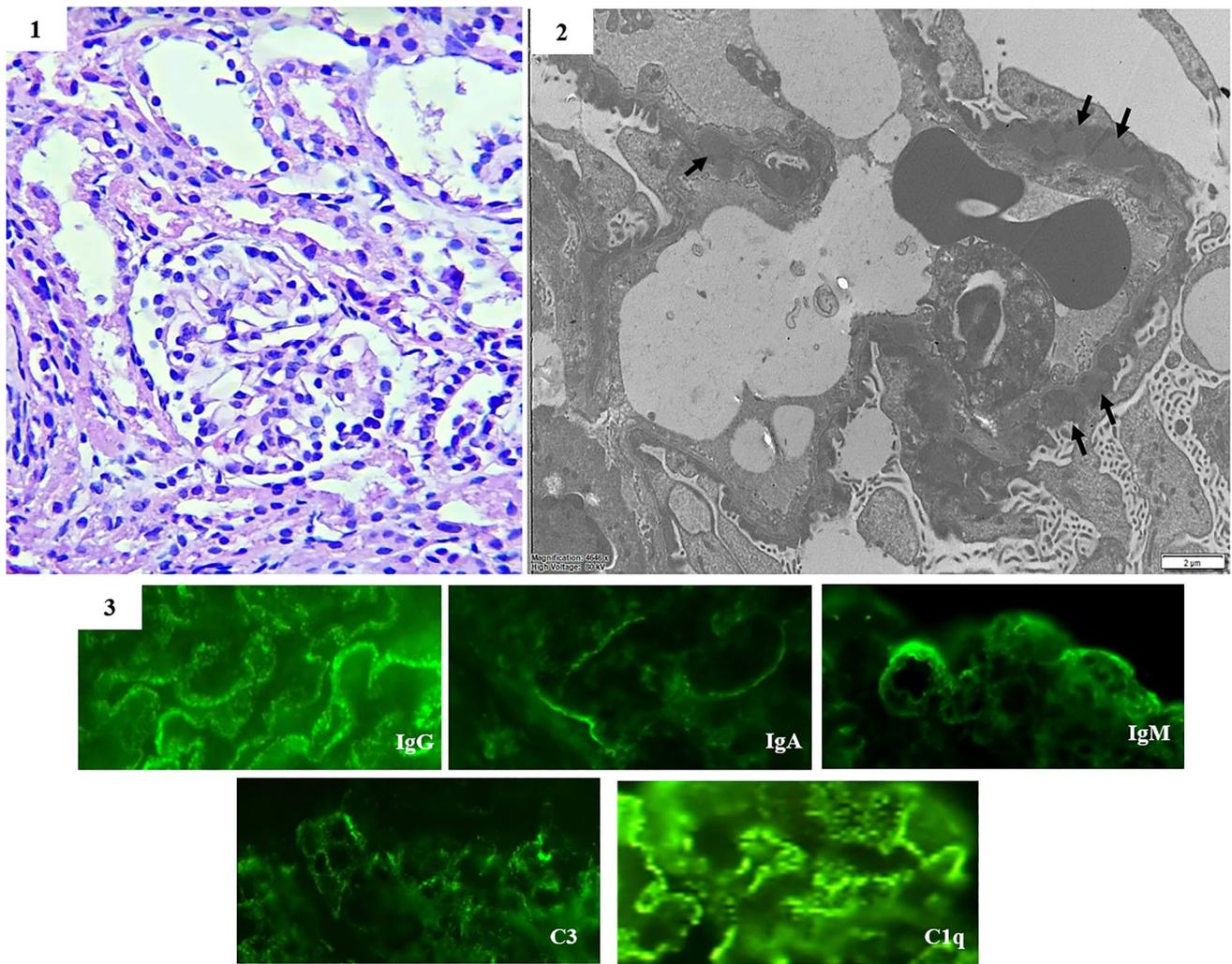
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The answers to these questions can be found at <https://doi.org/10.1007/s00467-022-05538-w>

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✉ Erica Elizabeth Faure  
erica.faure@unc.edu.ar

- <sup>1</sup> Centro de Microscopía Electrónica, Facultad de Ciencias Médicas, Universidad Nacional de Córdoba, Bv. de La Reforma, esq. Haya de la Torre, 5000 Córdoba, Argentina
- <sup>2</sup> Instituto de Investigaciones en Ciencias de La Salud (INICSA), Consejo Nacional de Investigaciones Científicas Y Técnicas, Córdoba, Argentina
- <sup>3</sup> Servicio de Nefrología, Hospital de Niños de La Santísima Trinidad, Córdoba, Argentina
- <sup>4</sup> Servicio de Anatomía Patológica, Hospital de Niños de La Santísima Trinidad, Córdoba, Argentina
- <sup>5</sup> Servicio de Anatomía Patológica, Hospital Córdoba, Córdoba, Argentina



**Fig. 1** Histopathologic findings in the full-house membranous glomerulopathy. (1) Glomerulus with prominence of the visceral epithelial cells and slight prominences of the glomerular basement membrane (H/E×400). (2) Electron microscopy showing deposits in

subepithelial locations (arrows) with extensive podocyte effacement. Bar: 2  $\mu$ m. (3) Full-house immunostaining by immunofluorescence: Deposits are seen mainly along the glomerular basement membrane

## Declarations

**Informed consent** Informed consent was obtained from the patient's guardian for the publication of the text and the use of the images.

**Conflict of interest** The authors declare no competing interests.

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