Reviewer's report

Title: Serum levels and renal deposition of C1q complement component and its antibodies reflect disease activity of lupus nephritis

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Reviewer: noemie jourde-chiche

Reviewer's report:

Tan and al provide valuable information on serum C1q, serum anti-C1q antibodies and renal C1q deposits and their relation with histopathological lesions in a large cohort of patients with lupus nephritis. The manuscript could be more didactic and even more precise on the characterization of this interesting cohort.

Minor Essential Revisions:

1) Figure 1 is not very informative. SLE group should be divided in 2 groups: "anti-C1q positive" and "anti-C1q negative" patients, in addition to the control group. The reader could then compare C1q levels in patients with/without anti-C1q

2) Levels of C1q are the lowest in patients with class IV lupus nephritis, and are inversely correlated with renal activity indices, but are not associated with renal outcome. Could the authors discuss this result? If possible, authors could also provide data on the renal outcome of this cohort (Kaplan-Meier analysis of renal survival and relapse-free renal survival) according to C1q level at inclusion. Three groups could be compared: patients with "normal C1q" (> 40 µg/mL), "low C1q" (20-40 µg/mL) and "very low C1q" (<20 µg/mL).

3) Could the authors provide references to support the hypothesis of an endothelial production of C1q (discussion section, page 10, line 12)?

4) The paragraph on CRP and PTX3 immune complexes (page 10, lines 19-25) is confusing and should be clarified. The ability of PTX3 to bind C1q could be mentioned.

5) Recent literature on the immuno-regulatory properties of C1q in SLE, beyond clearance of immune complexes and apoptotic cells, could be mentioned: C1q limits the differentiation of monocytes into dendritic cells [Son et al, PNAS 2012] and immune complexes-induced production of IFN# by pDC [Lood et al, Ann Rheum Dis 2009], and participates in neutrophil extracellular traps (NETs) clearance [Elkon et al, Curr Opin Immunol 2012]

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.