Antiphospholipid syndrome-associated nephropathy in systemic lupus erythematosus

A letter in response to: Tektonidou MG. Antiphospholipid syndrome-associated nephropathy in systemic lupus erythematosus. *Int. J. Clin. Rheumatol.* 7(2), 131–134 (2012).

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The article published by Maria G Tektonidou entitled 'Antiphospholipid syndrome-associated nephropathy in systemic lupus erythematosus' in the esteemed journal of *International Journal of Clinical Rheumatology* had some points that need further explanation [1].

In this article, Tektonidou has explained the morphologic lesions of antiphospholipid syndrome-associated nephropathy (APS-nephropathy). She also emphasizes that the renal pathologists should pay particular attention to the histologic lesions of APS-nephropathy during the examination of renal biopsies of systematic lupus erythematosus patients, especially those with positive antiphospholipid antibodies [1].

Tektonidou also fully explained morphologic lesions of APS-nephropathy [1]. In recent years, much progress has been made toward understanding vascular lesions in lupus nephropathy. Recently, Wu *et al.* conducted a study on 341 patients with lupus nephritis, and found that 279 were diagnosed with single or multiple renal vascular lesions that included 253 with vascular immune complex deposits, 82 with atherosclerosis, 60 with thrombotic microangiopathy, 13 with noninflammatory necrotizing vasculopathy and two with true renal vasculitis [2]. In this study, they suggested the inclusion of renal vascular lesions to the 2003 International Society of Nephrology/Renal Pathology Society system of lupus nephritis classification to improve renal outcome predictions [2]. However, vascular lesions in lupus nephritis have different etiologies and may result from lupus-related vasculopathy due to immune complex deposition in the vessel wall, vasculitis owing to rare association of ANCA-associated vasculitis with lupus and, finally, the most important is APS-nephropathy [2–6]. Thus, it is impossible to include the vascular lesions in the International Society of Nephrology/Renal Pathology Society 2003 lupus nephropathy classification, while combining different vascular disorders into a general category of vasculopathy as this is incorrect. It is evident that the main etiologic factor of vascular lesions in systemic lupus erythematosus belongs to APS-nephropathy, which is also known as vaso-occlusive nephropathy [7–10], and it is well known that morphologic lesions of APS-nephropathy aggravate lupus nephropathy [11–15].

In fact, it seems judicious to suggest a distinct classification for APS-nephropathy, to emphasize more consideration of this disease and to avoid under-recognition of this nephropathy. This classification may be used together with the International Society of Nephrology/Renal Pathology Society 2003 of lupus nephropathy in the same report.

However, the main question is which morphologic lesions of APS-nephropathy have prognostic value and should, therefore, be included in this classification?

In answer to this, vascular lesions should be categorized into acute (thrombotic microangiopathy) and chronic (fibrose intimal hyperplasia and thrombus), glomerular lesions (glomerular ballooning) and tubule interstitial involvement (focal cortical atrophy and tubular thyroidization) [1,12,16,17].

In this regard, I draw attention to gathering pathologic lesions of this syndrome into a classification, such as Oxford classification for IgA-nephropathy for the below mentioned reasons [18–20].

First, in contrast to the morphologic lesions of lupus nephritis, which is usually additive, pathologic features of APS-nephropathy are not proliferative. In fact, in lupus nephropathy, pathologic lesions may evolve from class I to II, III, IV and, in the case of failure of treatment, class VI lupus nephritis will ensue [2,8,10]. However, in APS-nephropathy, pathologic damage

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is a vaso-occlusive disease, affects glomeruli, vessels and tubule interstitial.

Second, a suggested classification for APS-nephropathy, should be simple and practical, and resemble the Oxford classification [18,19].

However, the suggestion of a new classification for APS-nephropathy will involve a tremendous amount of work and will require a working group; thus, more studies on this topic is suggested.

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