

# Re: Renal Involvement in Patients with Hepatitis C Virus Infection

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## SIR,

I read the original paper published in the previous issue of the *Iranian Journal of kidney Diseases* with great interest.<sup>1</sup> The topic is important enough to mention by the authors. They concluded that hepatitis C virus (HCV) infection is associated with renal involvement. This result has been publicized by many articles in the literature.<sup>2,3</sup> I agree with the authors that HCV infection is an emerging disease and we should pay more attention to extrahepatic involvement, especially renal in this group.<sup>4</sup> Extrahepatic manifestations are also vital and include mixed cryoglobulinemia, lymphoproliferative disorders, and HCV-associated glomerulonephritis.<sup>5</sup> Many studies have shown a very high prevalence of cryoglobulinemia in HCV-infected patients, ranging from 19% to more than 50%.<sup>6,7</sup> Cryoglobulinemia was measured in patients with proteinuria, but it can be asymptomatic and it was better to check in all of the patients.

Diabetes mellitus has emerged as the most common cause of kidney disease, and on the other hand, HCV infection is an emerging disease, too. It is possible for existence of the two problems in one case, but there are some reports that demonstrated a higher incidence and prevalence of type 2 diabetes mellitus in HCV-infected patients in comparison with general population,<sup>5,8,9</sup> and the severity of liver disease can affect the kidney and the prevalence of diabetes mellitus, too.<sup>9</sup> We do not have any information about the severity of liver disease. The next question is about exclusion of diabetes mellitus from the study group. Was fasting blood glucose alone or plus glucose tolerance test for exclusion of diabetes mellitus used? Without doing glucose tolerance test, it is predicted to miss some patients with diabetes mellitus and normal fasting blood glucose. Hepatitis C virus may be a cause of diabetes mellitus, and family history of diabetes mellitus can help us in differentiation of secondary from primary diabetes mellitus.<sup>9</sup>

Finally, in the discussion part they mentioned that "our data also supported the association between HCV infection and cryoglobulinemia." I think this is a known role and they cannot conclude from their results.

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