

PATTERN OF RENAL INJURIES AMONG PATIENTS OF HEPATITIS B AND C INFECTION

DR. ZARA NISAR ANWAR

Khyber Teaching Hospital, Nephrology Unit, Peshawar, PAKISTAN.

INTRODUCTION AND OBJECTIVES

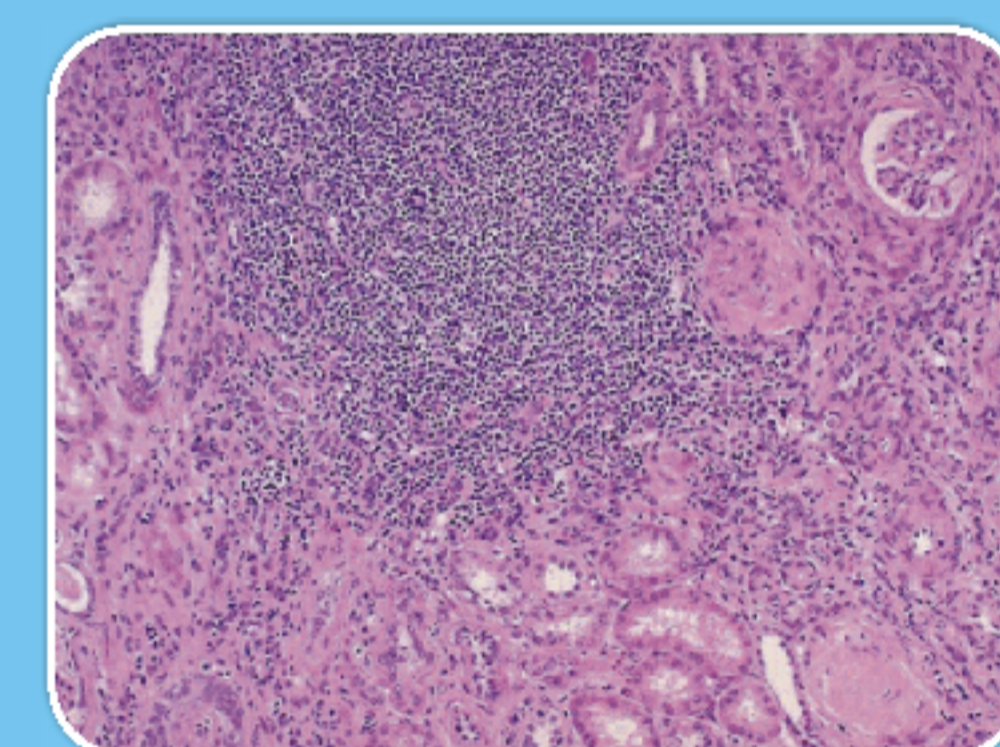
The spectrum of renal diseases with hepatitis B and C diseases is expanding. The objective of this study was to describe the pattern of renal injuries in patients diagnosed with Hepatitis B and C diseases at 3 tertiary care facilities in Peshawar, Pakistan.

METHODS

Data of the patients with Hepatitis B and C, who were presented to Khyber Teaching Hospital, Hayatabad Medical Complex and Lady Reading Hospital, from January 2013-December 2014 were analyzed by retrospective chart review. The cases with renal involvement were identified from out patient records and underwent renal biopsy to recognize the pattern of renal injury.

RESULTS

215 patients with Hepatitis B and C were identified. 158 out of them had evidence of renal involvement. 106 were male and 52 were female. 84 patients had essential mixed cryoglobulinemia leading to membranoproliferative glomerulonephritis (MPGN). 53 had membranoproliferative glomerulonephritis (MPGN) without cryoglobulinemia, 18 had membranous glomerulonephritis, 2 had focal segmental glomerulosclerosis and 1 had suspected renal cell carcinoma.



H and E Stain of a Renal Biopsy

CONCLUSION

HCV and HBV infection is both a cause and complication of chronic kidney disease. It may cause glomerular disease, occurring largely in the context of mixed cryoglobulinemia. This infection also represents a major medical and epidemiologic challenge both in patients on renal replacement therapy and those undergoing kidney transplantation. The presence of HBV and HCV correlated with higher rates of mortality in patients on dialysis and transplantation than HBV and HCV-negative ones. The major concern is the lack of safe and effective drugs to treat HBV and HCV-infected patients with chronic kidney disease. Unfortunately, there are no large-scale clinical trials performed in this population, so that the evidence for treatment recommendations is evaluated.

REFERENCES

- 1 Cacoub P, Renou C, Rosenthal E, Cohen P, Lhoury I, Loustaud-Ratti V, Yamamoto AM, Camproux AC, Hausfater P, Musset L, Veyssier P, Raguin G, Piette JC. Extrahepatic manifestations associated with hepatitis C virus infection. A prospective multicenter study of 321 patients. The GERMIVIC. Groupe d'Etude et de Recherche en Medecine Interne et Maladies Infectieuses sur le Virus de l'Hepatitis C. *Medicine (Baltimore)* 2000; 79: 47-56 [PMID: 10670409 DOI: 10.1097/00005792-200001000-00005]
- 2 Roudot-Thoraval F, Bastie A, Pawlotsky JM, Dhumeaux D. Epidemiological factors affecting the severity of hepatitis C virus-related liver disease: a French survey of 6,664 patients. The Study Group for the Prevalence and the Epidemiology of Hepatitis C Virus. *Hepatology* 1997; 26: 485-490 [PMID: 9252163 DOI: 10.1002/hep.510260233]
- 3 Galossi A, Guarisco R, Bellis L, Puoti C. Extrahepatic manifestations of chronic HCV infection. *J Gastrointest Liver Dis* 2007; 16: 65-73 [PMID: 17410291]
- 4 Huang JF, Chuang WL, Dai CY, Ho CK, Hwang SJ, Chen SC, Lin ZY, Wang LY, Chang WY, Yu ML. Viral hepatitis and proteinuria in an area endemic for hepatitis B and C infections: another chain of link? *J Intern Med* 2006; 260: 255-262 [PMID: 16918823]
- 5 Morales JM, Campistol JM. Transplantation in the patient with hepatitis C. *J Am Soc Nephrol* 2000; 11: 1343-1353 [PMID: 10864593]
- 6 Tsui JI, Vittinghoff E, Shlipak MG, O'Hare AM. Relationship between hepatitis C and chronic kidney disease: results from the Third National Health and Nutrition Examination Survey. *J Am Soc Nephrol* 2006; 17: 1168-1174 [PMID: 16524948 DOI: 10.1681/ASN.2005091006]
- 7 Lee JJ, Lin MY, Yang YH, Lu SN, Chen HC, Hwang SJ. Association of hepatitis C and B virus infection with CKD in an endemic area in Taiwan: a cross-sectional study. *Am J Kidney Dis* 2010; 56: 23-31 [PMID: 20400217 DOI: 10.1053/j.ajkd.2010.01.015]
- 8 Liangpunsakul S, Chalasan N. Relationship between hepatitis C and microalbuminuria: results from the NHANES III. *Kidney Int* 2005; 67: 285-290 [PMID: 15610253]

