Membranoproliferative Glomerulonephritis

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Forward

The most common type of glomerulonephritis (a type of kidney disease) found in people with hepatitis C (HCV) is cryoglobulinemic membranoproliferative glomerulonephritis (MPGN). Other less common forms of these types of kidney diseases include non-cryoglobulinemic MPGN, membranous glomerulonephritis, MPGN type III, and mesangial proliferative glomerulonephritis. This article will concentrate on MPGN.

MPGN is a type of kidney disease caused by complexes (such as HCV antibodies, the hepatitis C virus, rheumatoid factor) deposited in the membranes (glomeruli) of the kidneys. The prevalence of MPGN in the hepatitis C population is difficult to gauge because of the limited number of studies conducted.

Despite the fact that HCV-related MPGN is relatively uncommon in the hepatitis C population, MPGN is considered a significant problem because of a large number of people infected with hepatitis C and the potential for severe and life-threatening complications.

MPGN is usually diagnosed using various laboratory tests such as HCV antibody positive, HCV viral load, elevated liver enzymes, positive rheumatoid factor, circulating cryoglobulins and confirmed by kidney biopsy.

MPGN is a complicated disease to diagnose because there are few symptoms during the early stages of MPGN. The actual diagnosis of most cases occurs mostly in people who are in their 50’s and 60’s. It also happens somewhat more commonly in women than in men. Symptoms can include elevated liver enzymes, hypertension (high blood pressure), joint pain and neuropathy.

The disease progression of MPGN occurs over an extended period of time and is highly variable from one person to another. A small percentage of people with
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MPGN will develop severe kidney disease (end-stage renal disease) that will require dialysis. Treatment of HCV-related MPGN usually consists of treatment of the underlying cause — hepatitis C. HCV treatment has had limited success, but it has been shown to improve the condition of the kidneys and reduce the incidence of acute flare-ups in some people. Remission of HCV-related MPGN only occurs in a minority of people treated. One of the most important strategies for managing MPGN is to control blood pressure, which will help to prevent further damage to the kidneys. Other treatment options included the use of corticosteroids, antiplatelet therapy, Cyclophosphamide (immunosuppressive drug and chemotherapy) calcineurin inhibitors, and Rituximab.

Conclusion
Hepatitis C-related cryoglobulinemic membranoproliferative glomerulonephritis is a rare disease that can be improved if caught early. Diagnosis of hepatitis C soon after infection along with early treatment and cure will prevent this extrahepatic manifestation and other EHs. Curing hepatitis C in someone with membranoproliferative glomerulonephritis will help to improve it but will not cure it.

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