SHOULD INTERFERON THERAPY BE INSTITUTED IN ACUTE HEPATITIS C AND NEEDLE-STICK INJURY ? A SUGGESTED THERAPEUTIC APPROACH

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Hepatitis C virus (HCV) has the unique ability to self mutate its surface antigen so that the previously formed host antibodies become ineffective. By the time, body's defense mechanisms form new antibodies against the mutated antigen, the antigen mutates once again, leaving the newly-formed antibodies ineffective too. The process goes on and on, which explains as to why 80-85% of all acute hepatitis C cases progress to develop chronic infection? Currently there is no pre or post-exposure prophylaxis for HCV infection available. Thus the question arirses whether the costly interferon therapy be instituted in acute hepatitis cases or not?

Since some 80-85% of acute hepatitis C cases progress to chronic hepatitis C, it is reasonable to identify and treat acute hepatitis C cases with antiviral therapy. Attempts to identify acute hepatitis C cases are hampered by the asymptomatic state which remains unreported to the physician. Secondly, there is no definite test that could differentiate acute from chronic HCV infection even for the symptomatic case. Thirdly, cases that do develop symptoms of acute hepatitis C have more chances of spontaneous resolution than the asymptomatic cases1. These limitations have contributed to lack of controlled data on acute hepatitis C cases that may accordingly help in development of specific guidelines for these patients.

Acute hepatitis generally presents as either acute clinical (icteric) hepatitis, needle-stick injuries or incidental finding of seroconversion. In cases of needle stick injury, both the source patient and the health-care worker should undergo baseline anti-HCV testing. If the source patient is positive for anti-HCV and the health-care worker negative, the latter has a 1.8% (ranging from 0-7%) chance of contracting HCV infection. Immunoglobulins are not effective for post-exposure prophylaxis of hepatitis C. All such cases should undergo a qualitative HCV RNA assay at week 2. At least two negative HCV RNA assays arerequired before confirming absence of infection. The risk of transmission from an infected health-care worker to a patient appears to be very low[2].

Because of the high prevalence of spontaneous resolution in cases of acute clinical (icteric) hepatitis, current evidence suggests waiting for 12 weeks to allow for spontaneous resolution to take place[3]. At least two negative HCV RNA assays are required to confirm spontaneous resolution. In rest of the nonicteric cases, it is best to start the therapy before 12 weeks as the chances of spontaneous resolution are low. The best results are achieved if therapy is commenced before 12 weeks – in fact as early as possible. Treatment in all cases with acute hepatitis is peginterferon monotherapy given for 24 weeks, especially in genotype 1. However 24 weeks treatment is generally recommended but 12 weeks course of pegylated interferon therapy should possibly be given in genotype 2 and 3 and infection[4]. Treatment results in terms of sustained viral response (SVR) rates achieved are generally very encouraging (>90%) in acute hepatitis C cases[5].

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