Treatment of hepatitis B and C co-infection in schizoaffective disorder

Sir,

Hepatitis B (HBV) and hepatitis C (HCV) are chronic viral liver infections representing a substantial health burden in the US and elsewhere. The impetus to ‘push the treatment envelope’ results in treatment of a patient group with co-morbid serious psychiatric illness that amplifies treatment challenges. We describe a HBV/HCV co-infected patient with cirrhosis and psychotic illness.

A 39-year-old man was evaluated for cirrhosis and co-infection with HBV/HCV. The patient’s other medical problems included prevailing psychiatric diagnoses of schizoaffective disorder and bipolar II disorder. He also had a history of substance abuse. Family history was significant for depression, including suicide in his father. He had no psychotic symptoms at the time of evaluation. Medications included lactulose, risperidone, quetiapine, gabapentin, bupropion, venlafaxine, and lorazepam. Physical examination revealed spider angiomata, gynecomastia, and testicular atrophy. HBV surface antigen and HCV antibody were positive. HCV genotype was identified as 2B, with a quantitative HCV-RNA of 1.6 million copies per ml. Liver biopsy confirmed cirrhosis. Hepatitis A antibody (total) was non-reactive, ALT 132 U/l, AST 82 U/l, INR 1.2, total bilirubin 1.1 mg/dl, WBC 2.7 K/mm³ and platelets 67 K/mm³. The Child-Turcotte-Pugh (CTP) score was 6–7 (Class A–B). His MELD score was 9.

Two months later, HBV DNA measured at 2 billion copies of virus per ml with HBV envelope (HBe) antigen and HBV surface (HBs) antigen positivity. Venous ammonia was measured at 0.88 MCS/ml (normal 0.17–0.80). A triphasic CT scan showed a nodular-appearing liver, splenomegaly and tortuous enlarged splenic vein consistent with cirrhosis. Treatment was started with lamivudine 150 mg qd. HBV viral load decreased to 9 million copies per ml after 1 month, to 6 million copies/ml after 2 months, to 47 000 after 3 months, and was undetectable at 5 months. During the fourth month, ALT increased to 441 IU/l and INR increased to 1.3. Haemoglobin decreased to 9.2, WBC to 1500 cells/mm³ and platelets to 66 000 cells/mm³. Albumin decreased to 3.4.

Filgrastim (GM-CSF) was prescribed at a dose of 300 mcg subcutaneous three times a week to treat his pancytopenia. Interferon (3 million units three times a week) and ribavirin (1000 mg/day) therapy was initiated. HCV RNA became undetectable at 3 months. He developed anaemia, leukopenia and thrombocytopenia (white count 1300 cells/mm³, haemoglobin 11.4 g/dl and platelets 47 000 cells/mm³), despite therapy with filgrastim and erythropoietin, and IFN/RBV therapy was terminated at 6 months. One year after withdrawal of IFN/RBV, he continued to be HBV-DNA- and HCV-RNA-negative. However, he experienced a recurrence of active psychosis, which led to suicide.

Patients with major psychiatric illness are at higher risk for exposure to HBV/HCV. Unfortunately, psychiatric disorders also increase risks in IFN/RBV therapy. These disorders reduce compliance and are associated with a high suicide rate. In addition, IFN may induce or exacerbate psychiatric symptoms. However, increased psychiatric symptoms with IFN have not been uniformly found, suggesting that concerns regarding IFN treatment in psychiatric illness may be excessive.

Management of HCV with IFN in a patient with a major psychiatric illness adds a significant level of complexity to clinical decision-making, and poses ethical challenges.

Patients with mood disorders (e.g. major depression and bipolar disorder) may have poor cognitive function; in particular, decreased memory and concentration. Other mood symptoms, such as depressed mood, decreased motivation, profound hopelessness, and poor energy, may lead to a greater risk of medical non-compliance. Depressed patients are at risk for suicidal ideation; this may be expressed as passivity, poor self-care and acts of self-harm.

Patients with psychotic disorders (e.g. schizoaffective disorder) frequently experience hallucinations (abnormal sensory experiences) and delusions (fixed, false beliefs, often of a persecutory nature) which cause significant distraction and additional problems with compliance. Patients with paranoid delusions may believe that medications are ‘poison’. Psychotic patients’ hallucinations and delusions can also interfere with their understanding of clinical instructions. Patients with psychotic disorders are prone to psychotic decompensation when confronted with stressors such a life-threatening illness. In addition, the risk of suicide in schizoaffective disordered patients is similar to that of patients with major depression.

This case illustrates an ethical dilemma in treatment of HBV/HCV in a patient with a chronic psychotic illness. Optimum treatment of such a patient includes a close collaborative relationship between the hepatologist and psychiatrist. Surveillance for psychiatric symptoms is essential in...
patients with a chronic psychiatric illness. These patients must be monitored more closely when medications with notable psychiatric side-effects (e.g. IFN) are started. Regular monitoring for suicidal symptoms is essential in the clinical care of schizoaffective disordered patients; the hepatologist must identify psychotic and suicidal symptoms in such a patient, and immediately refer the patient to the treating psychiatrist. Chronic psychiatric patients with adequate social support and comprehensive psychiatric treatment are expected to be more compliant with medical treatment, resulting in better clinical outcomes.

Our patient was able to tolerate antiviral treatment, without psychiatric side-effects, and with successful eradication of both viruses. Unfortunately, his psychiatric symptoms recurred one year later, and he committed suicide. While speculative, it is possible that the social structure provided by the regular care model for HBV/HCV treatment provided a stable clinical setting that he perceived as ‘safe’, which may have added to his relative behavioural stability. The conclusion of antiviral treatment may represent a loss of this social structure. When such a patient ends the treatment regimen, the ‘loss’ of this clinical relationship should be discussed. Increased mental health contact may add emotional stability. An unknown additional event may have precipitated his decompensation. It is also important to note that his father’s death by suicide significantly increased his own risk for suicide.

Severe psychiatric illnesses increase the risk for exposure to viral hepatitis, and simultaneously increase the clinical and ethical challenges in treatment. Awareness of the psychiatric implication of antiviral treatment, monitoring of mental status, and collaboration with the treating psychiatrist are recommended to optimize clinical outcomes in this high-risk population.

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References


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