

A Case of Acute Co-infection with Hepatitis B Virus and Herpes Simplex Virus in an Immunocompetent Patient

Madeline K. Cleary,¹ Muhammad Farhan Ashraf¹, Umer Ejaz Malik², Asra Batool².

¹ Department of Internal Medicine, Albany Medical Center, Albany, NY ² Division of Gastroenterology, Albany Medical Center, Albany, NY

INTRODUCTION

While viral hepatitis is associated with several viruses, herpes simplex virus (HSV) hepatitis is a rare cause that carries a high mortality rate.¹ Co-infection with multiple viruses can occasionally be seen in immunocompromised patients.²

To the best of our knowledge, there have been no cases reported in literature of acute co-infection with hepatitis B virus (HBV) and HSV occurring in a patient without human immunodeficiency virus (HIV) or other immunocompromised states. We present a case of an immunocompetent patient found to have acute hepatitis in the setting of co-infection with HBV and HSV.

CASE REPORT

A 49-year-old female with history of IV substance abuse presented with two weeks of malaise, dark urine, pruritus, and jaundice. She reported abstinence from alcohol and illicit drug use for over four years and had no known history of liver disease. Physical examination was remarkable for scleral icterus and epigastric tenderness. Initial laboratory workup found elevated AST, ALT, and direct bilirubin.

CASE REPORT (Continued)

	Initial labs	Peak value	4-month follow-up
AST (IU/L)	1147	1857	19
ALT (IU/L)	924	1225	19
Total Bilirubin (mg/dL)	7.0	42.9	0.5
Direct Bilirubin (mg/dL)	4.2	26.6	n/a

Imaging showed hepatosplenomegaly with periportal edema and severe adenopathy at the porta hepatis, gastrohepatic ligament, and periaortic lymph nodes. Hepatic viral panel was positive for hepatitis B surface antigen, hepatitis B core antibody-IgM, herpes simplex virus I and II IgM, and was negative for hepatitis B surface antibody. This was consistent with acute hepatitis due to co-infection of hepatitis B and herpes simplex viruses. Further testing revealed HBV viral load of 6140000 IU/mL. Testing for HIV, anti-smooth muscle, and antinuclear antibodies was negative. During her hospitalization, AST peaked at 1857 IU/L, ALT peaked at 1225 IU/L, and bilirubin peaked at 42.9 mg/dL before trending down.

Treatment: She was started on treatment with Acyclovir and Tenofovir.

Follow-up: Laboratory results four months later revealed normalization of liver enzymes with AST and ALT at 19 IU/L and total bilirubin 0.5 mg/dL.

DISCUSSION

Viral co-infection causing chronic illness is typically seen in patients with HIV or other immunocompromised conditions, although acute co-infections are still uncommon in this patient population.² We report a case of two hepatitis-causing viruses, HBV and HSV, acutely infecting a patient without a history of HIV.

We recommend that HSV be considered as a differential diagnosis in patients presenting with acute hepatitis and should be included in a complete viral panel, as it can remain undetected and may cause fulminant hepatic failure.

REFERENCES

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