Successfully Treated Acute Liver Injury in Acute Hepatitis C with N-Acetyl Cysteine

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INTRODUCTION

- Significant liver injury related to acetaminophen overdose is more common in patients with preexisting liver disease.
- We present a patient with newly diagnosed acute hepatitis C infection with acute liver injury treated successfully with N-acetylcysteine despite negative acetaminophen levels.

Labs	Before	After N-Acetyl Cysteine
T. Bili (mg/dL)	9.4	5.1
ALT (IU/L)	1,941	731
AST (IU/L)	1,023	100
ALKP (IU/L)	202	218
INR	1.4	-

Table 1 – Liver function tests before and after N-Acetyl Cysteine

CASE DESCRIPTION

- A 29-year-old male with history of spontaneously cleared HCV two years ago and polysubstance use presented with abdominal pain, anorexia, and jaundice. He admitted to taking less than 2 g of acetaminophen for tooth ache and chronic back pain along with recent IV drug use, alcohol use, and marijuana use.
- Examination revealed scleral icterus and right upper quadrant tenderness.
- Labs are shown in table 1. Hepatitis C antibody returned positive. Hepatitis C genotype was 1a or 1b with an HCV RNA level of 10,917. Evaluation for other etiologies for acute liver injury including alpha 1 antitrypsin, ceruloplasmin, autoimmune, and other infectious work up was negative.
- MRCP was normal without biliary pathology.
- 140 mg/kg oral N-acetylcysteine for suspected acetaminophen overdose as the etiology for liver injury. His symptoms improved and liver tests showed an improvement in the next few days.
- The patient was prescribed Sofosbuvir-Velpatasvir at discharge for the treatment of acute hepatitis C.

DISCUSSION

- In patients with hepatitis C infection the rate of liver injury with acute or chronic infection is about 16.7%.
- This case highlights the importance of having a low threshold for treating patients for acetaminophen toxicity in acute hepatitis C patients based on history and further studies are needed to determine the incidence and implications of acute liver injury in acute hepatitis C patients as there are no studies in this group of patients so far.

REFERENCES

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