Case Report

Variceal Bleeding in Patients with Initation of Sofosbuvir and Ribavirin – Case Reports

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Abstract: Sofosbuvir is an oral nucleoside analogue and potent inhibitor of the Hepatitis C virus (HCV) RNA polymerase that is used in combination with other antiviral agents to treat chronic Hepatitis C Nevertheless, and for unknown reasons, successful antiviral therapy of Hepatitis C with Sofosbuvir and other direct acting agents in patients with cirrhosis is occasionally complicated by hepatic decompensation. Here we describe 2 case report of upper gi bleed at initial days of treatment with Sofosbuvir and Ribavirin.

Keywords: Variceal bleeding , Sofosdbuvir, Ribavirin, Heptitis C, Nucleoside analogue, Antiviral.

INTRODUCTION

HCV is the one of most common infectious disease in world-wide including Asia with increases prevalence of end stage liver disease [1]. According to WHO around 500,000 thousands death attributed each year due to HCV infection [2]. Before 2014 the Interferon and Ribavirin are cornerstones of HCV treatment, but these drugs have poor safety profile and limited efficacy in special group of cohorts Q hepatic decompensation [3]. Now since 1 to 2 years Sofosbuvir and Ribavirin option revolutionized the treatment options for patients with advanced liver disease cause by Hepatitis C [4]. However their effects on viral suppression, clinical outcome and safety profile in patients with advanced liver disease is still not yet been successfully proved.

Here we describe 2 case reports of Upper GI Bleeding within 7-10 days of started of Sofosbuvir and Ribavirin. The purpose of these 2 cases is to raise question of safety issues of DAA (direct acting agents) in advance liver disease.

CASE 1

A 64 year old male with genotype 3a HCV Decompensated cirrhosis, Child Pugh 10 and Meld score of 16 also had history of ascites which were well controlled on spironolactone 100 mg daily, Pre-treatment HCV RNA were 6.0 × 104 IU/ml were started treatment with Sofosbuvir and Ribavirin on 7th day of treatment he were admitted in our emergency department with 3 episodes of hematemesis and melena. On admission he appeared pale ,vital sign were notable for tachycardia and mild tachypenia his physical examination revealed anemia and moderate splenomegaly and ascites. Complete Blood Count was significant for pancytopenia (Hb 8.7 g/dl, TLC 2.800/cumm and platelets 120,00x109/ml), after resuscitation with fluids and medical treatment protocols of ugib patient underwent for EGD and found to be have Grade 4 Esophageal varices with sputter at 35 cm of esophagus which was targeted and ligated rest of esophageal varices were also banded, (Fig. **1**) following band ligation patient demonstrated excellent improvement and well tolerated Sofosbuvir and Ribavirin and remained clinically stable .

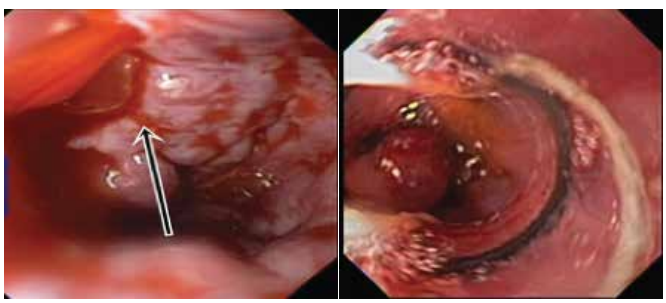

Fig. (1). Spurtter at 35 cm of Esophagus, successfully Ligation of Spurtter.

CASE 2

A 55 years old male with history of chronic Hepatitis C-induced decompensation presented to the emergency department for hematemesis. The patient was alert, trachycardiac (140 bpm) and hypotensive (87/36 mmHg). On physical examination found to be have splenomegaly. Blood tests showed Hb 6.8 g/dl, TLC 14,000/cumm and platelets 92,000x109. His viral load was 894856 IU/ml and model of end stage liver disease were 15. After adequate resuscitation patient underwent urgent upper GI endoscopy which shows active bleeding from fundal varix that was successfully controlled with 2 ml of histoacryl injection (Fig. **2**).

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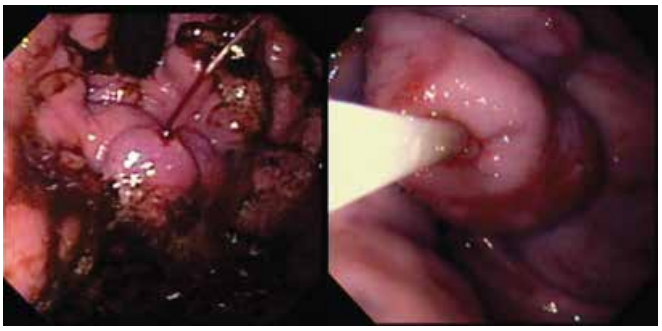

Fig. (2). Active Bleeding from Fundal Varix, Histoacryl Injection.

DISCUSSION

Current case reports describe the first experience of Upper GI Bleeding in association with newly start of Sofosbuvir and Ribavirin .The mechanism of underlying UGIB is currently unknown however the following factors may results this adverse effect ; 1) worsening of portal hypertension due to activations of inflammation process at initial stage of HCV treatment with Sofosbuvir and Ribavirin [5]. 2) Rare, but striking liver injury associated with Sofosbuvir is hepatic decompensation occurring in patients with pre-existing cirrhosis. The cause of this decompensation is not clear, but it may represent a response to HCV viral eradication (on-target effect) rather than toxicity of the administered antiviral agents (off-target effect on the liver). Alternatively, the injury may be coincidental and unrelated to therapy [6]. 3) Sofosbuvir metabolized in the liver largely via the cytochrome P450 system, predominantly CYP 1A2. That may reflect changes in the immune status resulting from the suppression of HCV replication and injury [7].

CONCLUSION

According to the results of available studies to date, the use of DAA in patients with advance liver disease is reasonable until more data are available, antiviral treatment in patients with advance liver disease should exclusively Monitored in specialized centers. According to results of our study before starting of DAA in advance liver patients varices should be screen and ligated along with that beta blocker should be initiated with close monitoring of sign of further hepatic decompensation.

AUTHORS' CONTRIBUTION

All authors have equally contributed.

CONFLICT OF INTEREST

Declared none.

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