

Deep Venous Thrombosis in Patients with Liver Cirrhosis: Incidence and Management

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Abstract:

The purpose of this study is to investigate the incidence and predisposing factors of lower limb deep venous thrombosis (DVT) in cirrhotic patients, and to evaluate the use of anticoagulation therapy (AT) with low molecular weight heparin (LMWH) and warfarin in management of DVT in these patients. The study was conducted on 622 cirrhotic patients from whom the incidence of lower limb DVT was obtained. Six cirrhotic patients with lower limb DVT and twenty four cirrhotic controls were fully investigated and compared. The patients and controls were age, sex and Child-Pugh score matched. All the patients were assessed according to a protocol including prothrombin time, prothrombin concentration, international normalized ratio (INR), protein C, protein S, antithrombin III, serum bilirubin, serum albumin, platelet counts, HBs-Ag and HCV antibody. Results revealed that the prevalence of DVT in our cirrhotic patients was 0.96%. The use of AT in cirrhotic patients needs meticulous follow up for early management of any complications and the screening for esophageal varices with prophylactic band ligation if risk signs were present is of great importance.

INTRODUCTION

Liver cirrhosis is accompanied by multiple changes in the hemostatic system due to the reduced levels of natural inhibitors of coagulation and coagulation factors because of the impaired hepatic synthetic activity [1]. Thus, the global effect of liver disease on hemostasis is complex, and therefore, patients with liver cirrhosis can experience bleeding or thrombotic complications [2].

Studies investigating the incidence of venous thromboembolism in patients with liver cirrhosis have reported a risk equal to [3] or less than [4] that of other medically ill hospitalized patients.

In severe liver disease the protein levels that are synthesized in the liver are reduced as the synthetic capacity is lost. Thus, levels of both pro-and anticoagulant proteins decrease as liver disease progresses. A relatively balanced reduction in pro-and anticoagulant activity does not result in a net hyper-or hypocoagulable state until