

## Preoperative use of romiplostim in thrombocytopenic patients with chronic hepatitis C and liver cirrhosis

**Mohamed M. Moussa**  
Ain Shams University, Egypt

**Background:** Romiplostim is a thrombopoietin mimetic “peptibody” comprising a human immunoglobulin IgG1 Fc domain covalently linked at each of its two C-terminals to two 14-amino-acid peptides that bind to and stimulate the thrombopoietin receptor. Continuous treatment with Romiplostim increases platelet counts in patients with immune thrombocytopenia for up to 5 years, with few adverse effects (1). Hepatitis C virus (HCV) represents the second most common blood-borne illness in the world, affecting up to 2% of the world’s population. Egypt reports the highest prevalence of HCV worldwide, ranging from 6% to more than 40% with an average of 13.8% (2). Moderate thrombocytopenia (platelet count, 50,000/microL-75,000/microL) occurs in approximately 13% of patients with cirrhosis (3).

**Aim of the Study:** To detect the efficacy of Romiplostim use in thrombocytopenic patients with chronic hepatitis C and liver cirrhosis preoperatively.

**Subjects and Methods:** Our study was performed on 12 patients in the Electricity Hospital, Cairo, Egypt, having chronic liver disease with liver cirrhosis and they were classified as Child-Pugh score C with thrombocytopenia. All the patients started Romiplostim injections at a dose of 2 mcg/kg once weekly for four weeks. CBC, liver and kidney function tests, bone marrow aspirate and biopsy were done to all patients at start of the study and at day 90. CBC was done for all patients every 3 days till day 90.

**Results:** There was non significant increase in the reticulin level in bone marrow of any of the patients although platelet count was very highly significant (p-value 0.000) increased as regard day to day follow up after Romiplostim injection with maximum peak from day 15 till day 33 in most of the patients. There were no significant increase in liver enzymes but there was significant increase in the bilirubin level (p-value 0.046). No postoperative complications in relation to platelet count or bleeding tendency were recorded in patients except for one patient who did not respond by platelet count increase during the time schedule of the study and hence did not undergo surgical intervention. On the other hand no side effects were reported.

**Conclusion:** Romiplostim can be used under close follow up in chronic hepatitis C patients with liver cirrhosis and severe thrombocytopenia preoperatively in a dose of 2 mcg/kg once weekly for four weeks. Additional studies are necessary to define the optimal dose and schedule of romiplostim.

mohmedmoussa@hotmail.com