Question 41 – May 13

Chronic liver disease is associated with pathophysiologic disruptions in hemostasis that are effectively rebalanced by compensatory changes.

Which of the following is a typical change in the hemostatic system associated with advanced chronic liver disease?

A. Increased levels of coagulation proteins II, VII, IX, X  
B. Increased levels of von Willebrand factor  
C. Increased circulating platelet counts  
D. Increased thrombopoietin levels  
E. Increased protein C levels

Answer: B

Chronic liver disease is associated with protein synthetic dysfunction and a general decrease in protein levels, especially those synthesized in the liver. Thrombocytopenia is a hallmark of portal hypertension and hepatic synthesis of thrombopoietin is decreased in advanced chronic liver disease. However, one compensatory mechanism for thrombocytopenia is increased levels of von Willebrand factor. The coagulation proteins II, V, VII, IX, X, and XI are all quantitatively decreased in chronic liver disease and protein C levels are also decreased as a partial compensatory mechanism.

References:
