

# ANALYSIS OF METALS IN THE SERUM OF PROFESSIONALLY EXPOSED POPULATION OF BLOOD-DONORS FROM THE BUCHIM-RADOVISH MINE AND UNEXPOSED GENERAL POPULATION FROM THE MUNICIPALITY OF SHTIP

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## INTRODUCTION

Cirrhosis hepatis is a chronic progressive liver disease. The morphological changes of the injured liver cause damages with different intensity in his various functions. These damages directly affect the appearance of haemostatic disorders due to the liver role in the synthesis of clotting factors.

## MATERIAL AND METHODS

From the eastern part of Macedonia in the last five years, 103 patients were hospitalized and treated with plasma components and at the same time hematologic and biochemical analyzes were made of them. Also, haemostatic basic tests were made, such as: number of thrombocytes, the bleeding time (Duke), the prothrombin time (Quick) shown as prothrombin activity in percent and INR, the thrombin time activated partial thromboplastin time (sPTT), capillary resistance and level of fibrinogen in serum. Reagents from Siemens company were used.

## AIM

To show the haemostatic disorders in patients with advanced disease stadium (ascites) who were treated in our Daily transfusion hospital and in the Internal ward Unit with plasma components (fresh frozen plasma and human albumin 20%).

## RESULTS

In all these patients there was a decreased number of thrombocytes under  $150 \times 10^9/L$  (in range of  $90-115 \times 10^9/L$ ); the bleeding time (Duke) mildly extended up to normal (3-6 minutes); prothrombin time (Quick) strongly extended from 25,5 to 27,5 sec or (45% to 40%) and INR from 2,16 to 3,5; the thrombin time and aPTT were in normal range; capillary resistance positive with 2++ and fibrinogen level in serum under normal (1-2 g/L).

## DISCUSSION AND CONCLUSION

With the disease advancement of hepatic cirrhosis, the haemostatic disorder become more and more manifested. Bruising and bleedings are present due to the decreased productions of factors of prothrombin complex and also decreased thrombopoietin from progressive hepatosplenomegaly.

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