

P-028

## Transplant associated thrombotic microangiopathy after liver transplantation: A case report

**Genco Gençdal<sup>1</sup>, Hakan İsmail Sarı<sup>2</sup>, Şule Namlı Koç<sup>1</sup>, Serdar Aslan<sup>3</sup>, Şerafettin Yazar<sup>3</sup>, Ramazan Dönmez<sup>3</sup>, Çiğdem Arıkan<sup>4</sup>, Kamil Yalçın Polat<sup>3</sup>, Murat Akyıldız<sup>5</sup>**

<sup>1</sup>Ataşehir Memorial Hastanesi, Organ Nakil Merkezi, Gastroenteroloji Kliniği

<sup>2</sup>Ataşehir Memorial Hastanesi, Hematoloji Kliniği

<sup>3</sup>Ataşehir Memorial Hastanesi, Organ Nakil Merkezi, Genel Cerrahi Kliniği

<sup>4</sup>Koç ÜTF hastanesi, Organ Nakil Merkezi, Çocuk Gastroenteroloji Kliniği

<sup>5</sup>Koç ÜTF hastanesi, Organ Nakil Merkezi, Gastroenteroloji Kliniği

**INTRODUCTION:** Thrombotic microangiopathy (TMA), which may occur in relation to hematopoietic stem cell transplant (SCT) or solid-organ transplant, refers to inflammatory and thrombotic diseases of the microvasculature characterized by otherwise unexplained microangiopathic hemolytic anemia and thrombocytopenia. We aimed to present a liver transplant recipient with TMA developed after liver transplantation.

**CASE:** A 54 years old woman with advanced decompensated liver disease referred to our hospital for liver transplantation. She had a variceal bleeding history with grade III esophageal varices and tense ascites. Initial laboratory tests revealed: Ast:38u/l, Alt:40u/l, Alp:344u/l, Ggt:68u/L, T.Bilirubin:16,11mg/dl, Direct Bilirubin:13,75mg/dl, Albumin:2,6 G/dl, Creatine:0,6mg/Dl, Hemoglobin:12.1 g/dl, Hematocrits:%36,5, White blood cell count:7390, Platelets:143000, Prothrombin time:24,4, Inr:1,90. MELD score was 24, Child Pugh Hugh Score was 11 (stage C). Living donor liver transplantation was performed. After liver transplantation pancytopenia developed which did not resolved with blood transfusion and thrombocyte replacement. Hematology specialist offered periferic blood smear. In peripheral blood smear, widespread schistocytes and hemochromatosis were found to be compatible with hemolysis, the corrected reticulocyte count was detected at the upper limit (1.96%). Bone marrow aspiration revealed: increase in erythroid mass without infiltration. ADAMTS-13 activity was detected %40.5 (references 40-130). Hematology specialist's diagnose was TA-TMA due to immunosuppressive drug (Tacrolimus). Tacrolimus was stopped and we continued immunosuppression with 1mg/kg methyl prednisolone. Plasmapheresis was initialized. Treatment after 2 weeks platelet number was 27000. We have applied for the use of Eculizumab to the Ministry of Health.

**CONCLUSION:** Transplant-associated TMA (TA-TMA) is a rare and life threatening complication of liver transplantation. Pathogenesis is multifactorial and risk factors include exposure to calcineurin inhibitors (CNIs), unrelated donor, human leukocyte antigen mismatch, graft-versus-host disease (GVHD), and viral infections. The treatment options are not clearly defined and suboptimal with high associated mortality rates. Multidisciplinary approach is essential for rapid diagnose and treatment. Eculizumab may be given in patient who does not response supportive treatment such as plazmapheresis and steroids.

**Keywords:** Transplantation, liver, thrombotic, microangiopathy

**Perferic blood smear**

