

O1034 HCV eradication by direct-acting antivirals is associated with an increase in platelet count: a 2-year follow-up study

Andrea Lombardi*¹, Valentina Zuccaro², Paolo Sacchi³, Edoardo Campodonico³, Luigia Scudeller⁴, Raffaele Bruno³, Caterina Uberti-Foppa⁵, Massimo Memoli⁶, Barbara Menzaghi⁷, Alessio Aghemo⁸, Maria Colpani⁹, Alessia Giorgini¹⁰, Clara Dibenedetto¹⁰, Roberta D'Ambrosio¹¹, Marta Borghi¹¹, Maria Plaz Torres⁸, Angiola Spinetti¹², Silvia Odolini¹², Pietro Lampertico¹¹, Massimo Puoti¹⁰, Giuliano Rizzardini¹³, Stefano Fagioli⁹, Mario Umberto Mondelli¹

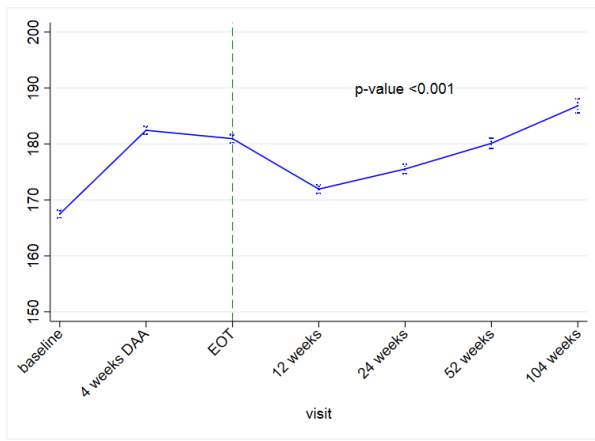
¹ Infectious Diseases II and Immunology Unit, IRCCS "San Matteo", Pavia, Italy, ² Infectious Diseases Unit, IRCCS Fondazione Policlinico "San Matteo", Pavia, Italy, ³ Infectious Disease Unit, IRCCS "San Matteo", Pavia, Italy, ⁴ Biostatistic Unit, IRCCS "San Matteo", Pavia, Italy, ⁵ Infectious Diseases Unit, San Raffaele Hospital, ⁶ Hepatology Unit, San Raffaele Hospital, Segrate, Italy, ⁷ Infectious Diseases Unit, Busto Arsizio, Busto Arsizio, Italy, ⁸ Internal Medicine and Hepatology, Humanitas University, Pieve Emanuele, Italy, ⁹ Gastroenterology Unit, ASST Papa Giovanni XXIII, Bergamo, Italy, ¹⁰ Hepatology and Gastroenterology Unit, San Paolo, Milano, Italy, ¹¹ Division of Gastroenterology and Hepatology, Ospedale Maggiore, Milano, Italy, ¹² Infectious Diseases Unit, Spedali Civili, Brescia, Italy, ¹³ Infectious Diseases Unit, Ospedale Sacco, Milan, Italy

Background: Thrombocytopenia is observed in up to 76% of patients with chronic liver disease and severe thrombocytopenia (<50.000/ μ l) is associated with relevant morbidity and mortality in patients with chronic hepatitis C (CHC). Although multiple factors are thought to be responsible for thrombocytopenia in CHC it is still unclear how platelet count may vary after viral eradication.

Materials/methods: We examined the kinetics of platelet count in a large cohort of CHC patients during and after treatment with direct acting antivirals (DAAs). To this end, we designed a retrospective cohort study on 11,351 patients with CHC treated with DAAs enrolled in 40 centers of Rete HCV Lombardia database. Clinical/demographic data were collected at baseline, during treatment and over a 2-year follow-up period. Multilevel mixed linear (univariable and multivariable) models were applied, with patient as random effect and timepoint as fixed effect, adjusting for baseline platelet count.

Results: Mean age was 60 years and males were predominant (59%). Mean liver stiffness value was 14.5 KPa and mean Child-Pugh and Meld scores were 5.37 and 7.96, respectively. Mean viral load at baseline was 2,353,863 IU/mL and the most frequent genotypes were 1b (44%), 1a (15%) and 3 (15%); SVR12 was achieved in 97.3% of patients. Other conditions associated with liver disease were alcohol abuse (10.50%) and co-infection by HBV (0.4%) and HIV (14%). Mean platelet count (130,000/ μ l) significantly increased at week 4 on treatment from baseline, decreased to baseline values by week 12 of follow-up, and progressively increased thereafter to reach 156,000/ μ l 2 years after viral eradication (p-value <0.001, Fig.1).

Conclusions: In our cohort of patients achieving HCV eradication after DAA treatment, we observed a significant increase in platelet count over a 2-year follow-up period, which was maintained after adjusting for baseline values. Further analysis will be performed to evaluate factors associated with platelet kinetics over time and to assess thrombopoietin levels.



piastrine_over_time

Figure 1. Platelet count in CHC patients treated with DAAs during time.

