INTRODUCTION

• Chronic hepatitis C virus (HCV) infection is one of the major risk factors for the development of hepatocellular carcinoma (HCC).
• New direct-acting antivirals (DAA) substantially improved the cure rate of HCV to above 90% but the incidence of HCV-related HCC remains high.

AIM

To identify predictive factors for development of HCC.

METHODS

• We used a retrospective cohort of patients who developed de novo HCC following DAA treatment (n=13) in comparison to controls who did not develop HCC (n=14) - matched on sex, age, fibrosis stage, and platelet counts, Table 1.
• Serum levels were collected i) before, ii) during, iii) at the end and iv) three months after DAA treatment, Figure 1. Panels of following immune mediators were evaluated by Luminex technology: 4-1BB (CD137), IL-17A, CTLA-4 (CD-152), IL-22, GITR, IL-29, GITRL, IL-4, IL-6, IL-5, LAG-3, TNF-α, PD-L1, TRAIL, PD-L2, APRIL, PD-1, CD30, TIM-3, IDO, IFN-γ, IL-2R, IL-18, MICA, IL-10, MICB, IL-12p70, Perforin, IL-13, VEGF, TGFB.

RESULTS

• Two-tailed Mann-Whitney test was used to compare 2 groups in same time-points. IL-12, IFN-γ, IL-2R, IL-18, MICA, IL-10, MICB, IL-12p70, Perforin, IL-13, VEGF, TGFB.

CONCLUSIONS

We identified a set of possible predictive factors for risk of HCC occurrence following DAA treatment. However, larger independent cohort should be used to verify the prognostic value of selected markers. Such results can improve the clinical management of HCV chronically infected patients treated by DAA prior to the development of HCC.