



Top: Transplantation Research

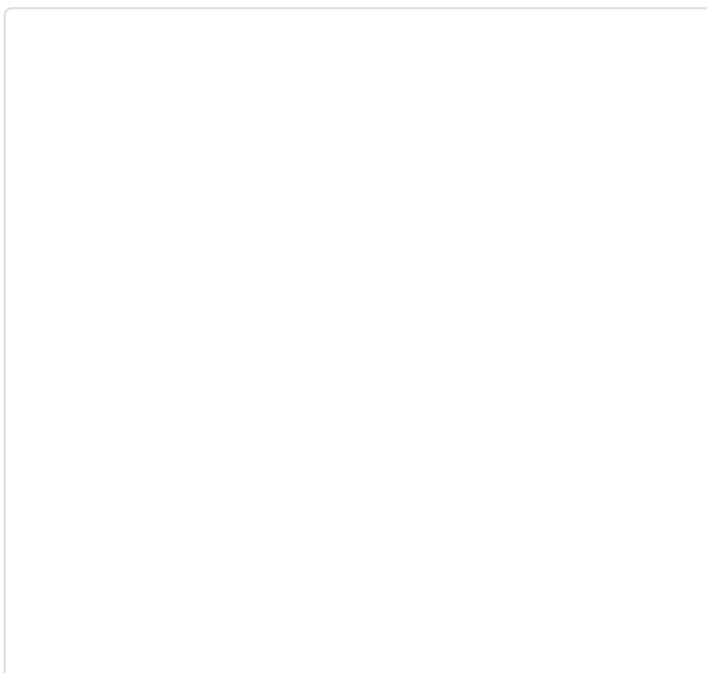
Arbeitsgruppe „Transplantation Research“ der Med Uni Graz erfolgreich bei International Liver Congress 2018.

Liver Congress 2018

Die Arbeitsgruppe von Assoz.-Prof.in Dr.in Vanessa Stadlbauer-Köllner der Klinischen Abteilung für Gastroenterologie und Hepatologie der Med Uni Graz war erfolgreich beim International Liver Congress 2018 in Paris vertreten. Der ILC ist mittlerweile weltweit der wichtigste und größte Hepatologie-Kongress mit mehr als 10.000 TeilnehmerInnen.

Mag.a Angela Horvath, PhD, Klinische Abteilung für Gastroenterologie und Hepatologie der Med Uni Graz, und Mag.a Dr.in Bettina Leber, Klinische Abteilung für Transplantationschirurgie, beide PostDocs der Arbeitsgruppe „Transplantation Research“ sowie Dr. Florian Rainer, Assistenzarzt und Student im Doktoratsstudium Medizinische Wissenschaften, hatten Poster unter den besten 10% aller eingereichten Arbeiten (insgesamt wurden mehr als 5.000 Abstracts eingereicht) und dadurch ein Reisestipendium gewonnen. Zudem hat Angela Horvath den Preis für das beste Poster im Themenbereich „Cirrhosis and Complications“ gewonnen – insgesamt wurden drei Posterpreise vergeben.

Herzlichen Glückwunsch!





Medical University of Graz, Austria

Direct acting anti-viral therapy rescues neutrophil dysfunction in HCV infection

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The Home of Hepatology

INTRODUCTION

HCV is a systemic disease that affects the liver but also shows extrahepatic manifestations often preceding liver disease. HCV induced immune dysregulation may lead to an increased risk of infections, which is an underestimated complication.

To study whether direct acting antiviral therapy is able to improve neutrophil function and decrease neutrophil dysfunction, by ex vivo experiments.

34 patients with HCV genotype 1 were analysed at baseline and after 12 weeks of treatment (DAA) by flow cytometry.

Neutrophils of patients were compared with healthy controls.

RESULTS

Overall SVR rate was 86%, 66% had cirrhosis and 6 infections occurred during therapy. Baseline phagocytosis was significantly reduced and the number of inactive neutrophils was increased in HCV patients. Both recovered fully after DAA therapy (Fig. 1).

HCV patients (Fig. 2)

Overall SVR rate was 86%, 66% had cirrhosis and 6 infections occurred during therapy. Baseline phagocytosis was significantly reduced and the number of inactive neutrophils was increased in HCV patients. Both recovered fully after DAA therapy (Fig. 1).

Fig. 1: Improvement of phagocytosis capacity during DAA therapy. $p < 0.001$ in both FACS and Western blot analysis.

Fig. 2: Serum fractions above 30kDa mediate neutrophil dysfunction. Serum was separated by molecular weight. Cross reactivity was done with patient and healthy serum. S: serum.

Fig. 3: Heme levels in HCV patients and neutrophil function.

Fig. 4: Phagocytosis (CD66) Ribavirin free DAA regimen. $p < 0.001$ in Western blot, $p < 0.001$ in FACS, $p < 0.001$ in Western blot.

CONCLUSIONS

Neutrophil dysfunction is an important extrahepatic manifestation. DAAs are able to rescue HCV induced neutrophil dysfunction probably by reducing haemolysis and hence oxidative stress. Therefore HCV should be eliminated as soon as possible.

REFERENCES

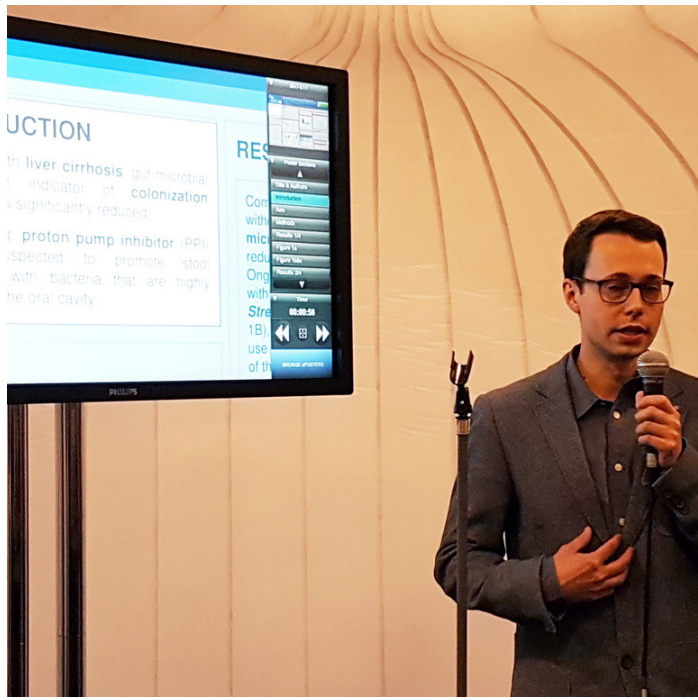
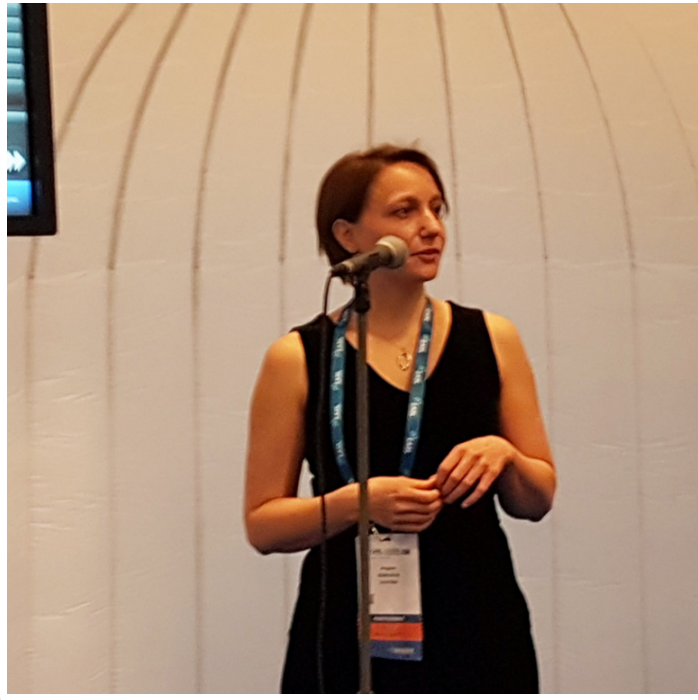
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ACKNOWLEDGMENT

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