Complete recovery of kidney transplant function after recurrence of hepatitis C virus related MPGN: a case of successful antiviral treatment of hepatitis C virus in a kidney transplant recipient requiring hemodialysis

Eva Schrezenmeier[1], Fabian Halleck[1], Birgit Rudolph[2], Oliver Staeck[1], Dmytro Khadzhynov[1], Lukas Lehner[1], Klemens Budde[1] and Michael Duerr[1]

[1]Department of Nephrology, [2]Departmanet of Pathology, Charité Universitätsmedizin Berlin, Germany

Background: The novel direct acting antiviral agents (DAA) are allowing an interferon-free treatment option for chronic heptitis C virus (HCV) infected patients with excellent sustained virological response rates (SVR). The therapeutic efficacy and safety in kidney transplant recipients so far is unclear. Especially the ability of DAAs to recover renal failure after recurrence of hepatitis C virus related membranoproliferative glomerulonephritis (MPGN) in the renal transplant remains unknown.

Methods: A 63-year old woman received a kidney transplant in 2012 after 2 years of maintenance hemodialysis (HD) due to HCV associated MPGN. HCV genotyp 1b infection occurred after blood transfusion after nephrectomy due to renal cell carcinoma in 1992. Three years posttransplant the patient had a rapid deterioration of renal function (baseline creatinine 1.5mg/dl), new-onset proteinuria of >2g/day and the need for HD. No cryoglobulines were detected. The patient developed a HCV associated skin rash (Fig 1a). Kidney allograft biopsy revealed recurrence of MPGN (Fig 1b).

Results: Patient received a combination of daclatasvir (DAC) 60mg and simeprevir (SIM) 150mg once daily for 12 weeks. At the beginning of therapy viral load was >5mio IE/ml. Aspartate aminotransferase, alanine aminotransferase and alcalic phosphatase were only slightly elevated. Initial immunosuppression based on tacrolimus (TAC) mycophenolate mofetil and steroids was continued. Pre-treatment liver biopsy showed mild inflammation I° and moderate fibrosis II° according to the classification of Desmet. Through levels of TAC showed no relevant changes during therapy with DAC and SIM. Viral load was not detectable two weeks after the start of therapy. So far SVR was still present 6 month post-treatment. No safety adverse effects related to the DAA therapy were detected. Patient's graft function stabilized with decreasing proteinuria (<200mg/d) and HD was stopped. Last creatinine was 1,1 mg/dl. Vasculitic skin changes disappeared (Fig 2a). Follow-up kidney biopsy revealed remission of thromboembolism, decreased subendothelial C3 deposition and less inflammatory infiltration of granular cells (Fig 2b).

Figure 1a: Patient's fingers and toe with HCV associated vasculitis

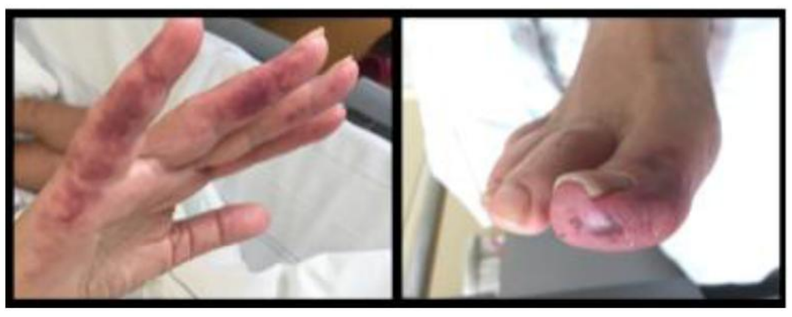


Figure 1b: Kidney allograft biopsy revealed recurrence of MPGN

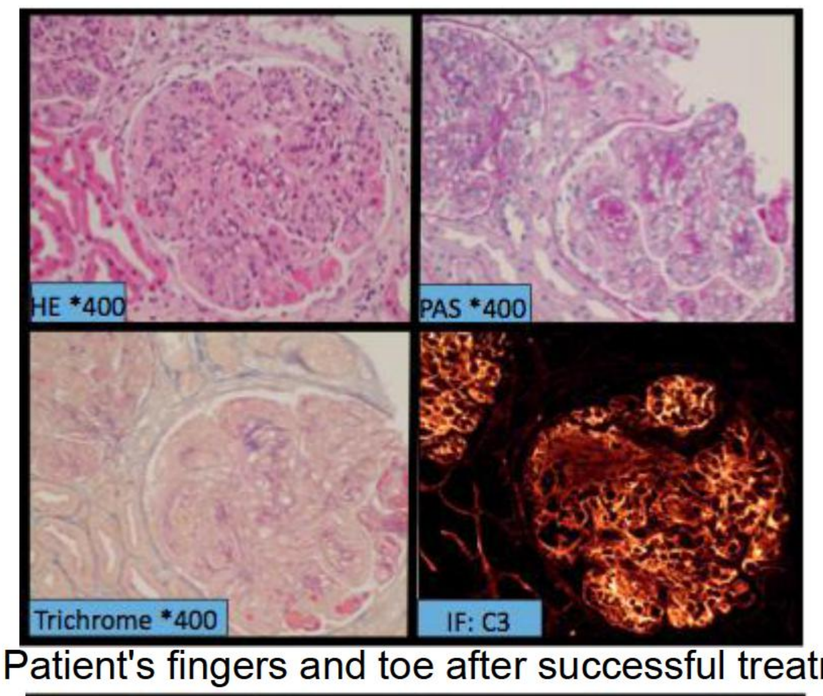


Figure 2a: Patient's fingers and toe after successful treatment

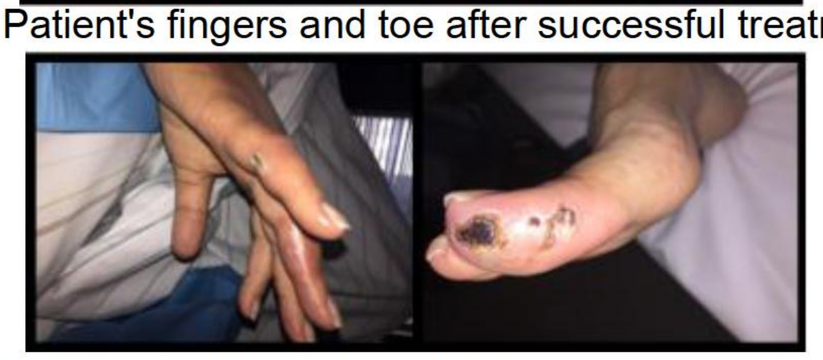
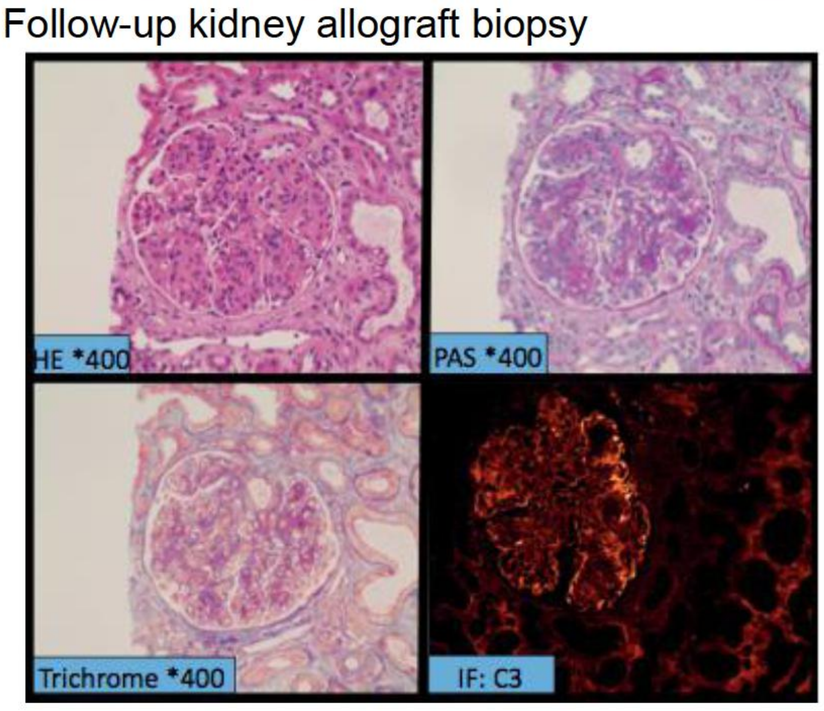


Figure 2b: Follow-up kidney allograft biopsy



Conclusions: We report the first case of successful and complete recovery of kidney allograft function after HCV related acute renal failure due to MPGN requiring HD. Treatment with DCV and SIM was effective and save, demonstrating the beneficial impact on HCV related extrahepatic manifestations in renal transplant recipients.

53 ERA
727--MP
Renal transplantation. Clinical.
Eva Schrezenmeier
DOI: 10.3252/pso.eu.53era.2016
ePosters supported by F. Hoffmann- La Roche Ltd.
53rd CONGRESS ERA-EDTA VIENNA AUSTRIA MAY 21st-24th, 2016
Held jointly with Österreichische Gesellschaft für Nephrologie
PosterSessionOnline.com