SUCCESSFUL TREATMENT OF HCV INFECTION IN HEMODIALYSED PATIENT

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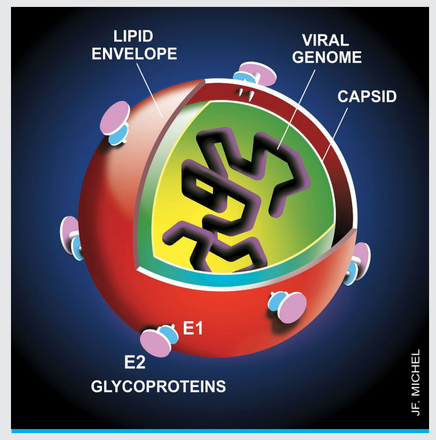
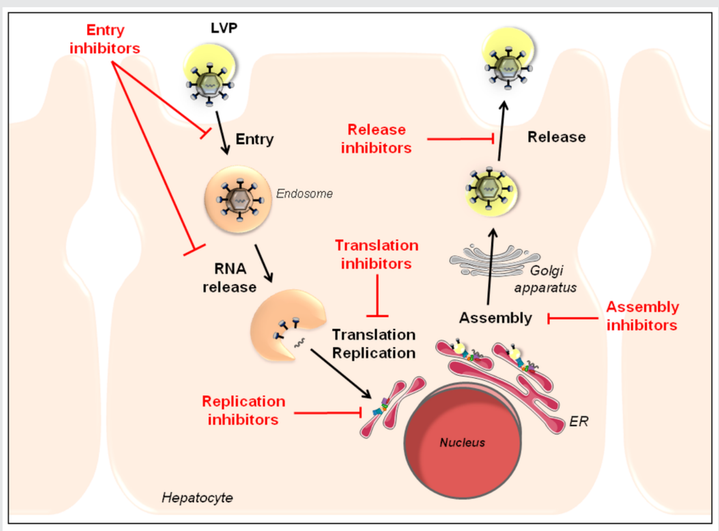
BACKGROUND

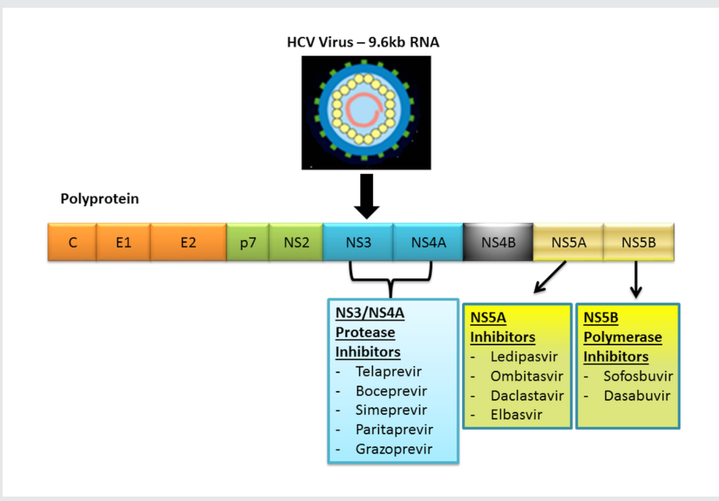
Hepatitis-C virus (HCV) infection is usually transferred by blood contamination. 80-85% of the patients infected by HCV become virus-carriers. Low grade activity of the virus results in chronic hepatitis with slow progression to liver failure. The prevalence of HCV seropositivity is higher among end stage renal disease (ESRD) patients than in general population. Patients on hemodialysis with suppressed immune system are at higher risk for either contagion or the progression of the viral disease. Antiviral therapy in the past was interferon based with medium efficacy and many side effects.





NEW THERAPIES

Molecular biology studies of the virus revealed the entire gene sequence as well as the structure and function of the proteins coded by the viral RNA. The entire life cycle of the virus was understood in details which allowed targeted therapeutic approach. There are several steps where the virus can be stopped from replication (picture 2).



Number of new non-interferon therapeutic agents against HCV had been introduced lately including protease inhibitors, RNA-polymerase inhibitors and viral assembly inhibitors (picture 3). As these agents are directed specificly against the viral proteins there is little interference with the host cell's own system. Combined treatment results in over 90% success rate and a low profile of side effects.

THE CASE

We are presenting the case of a patient who developed ESRD in childhood secondary to obstructive kidney disease. He was on hemodialysis for 2 years, when he received a cadaveric kidney transplant that was functional for 32 years.
He never had symptoms of acute hepatitis, but HCV positivity was diagnosed when his graft kidney started to fail. He has been back on HD for more than 3 years now.

He was proved eligible for active anti-viral therapy and 12 weeks of a combined treatment with Viekirax and Exviera was performed. The treatment was well tolerated with no side effects. HCV titer of 131000 IU/ml before treatment has turned into negative. Our patient was declared virus-free.

CONCLUSION

Our case demonstrates that ESRD patients can also benefit from the new non-interferon based antiviral treatment for chronic HCV infection. There is an initiative to provide treatment for all Hepatitis C positive patients from the same dialysis center simultaneously in order to eliminate the risk of re-infection. Eradication of HCV from dialysis unit can eliminate the worry of contamination and make it a safer environment for the other dialysis patients and personnel.