

# Use of New Direct-Acting Antivirals (DAAs) in Renal Transplant Patients Infected with Hepatitis C Virus: The First Experience in Sub-Saharan Africa

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## Commentary

Hepatitis C virus (HCV) infection affects more than 200 million people worldwide and its prevalence is high in patients with end-stage renal disease, thus increasing challenges in renal transplant patients infected with HCV. In developed countries around 1.8 to 8% of renal transplant patients are infected with HCV [1,2]. Indeed, prior to the era of the new direct acting antivirals (DAAs), the treatment of hepatitis C was based solely on the combination of standard interferon and ribavirin. Treatment with interferon is not feasible in the renal transplant patient because of the risk of rejection that it can induce [3]. Since then, transplant patients have developed cirrhosis or hepatocellular carcinoma (HCC) charts. In these cases, only liver transplant can represent the last therapeutic alternative for many cases. With the advent of DAAs deemed effective [4], well tolerated and without significant interaction with immunosuppressant, it is high time to review these patients.

Thus, we report the first case of a Sub-Saharan African renal transplant patient living in Abidjan, Cote d'Ivoire who presented a decompensated cirrhosis chart on HCV, in whom after treatment with AAD, presented a favorable evolution of his clinical and biological condition. The purpose of the discussion was to demonstrate the contribution of DAAs in the management of HCV in a renal transplant patient from a resource-limited country formerly condemned to death. It was a renal transplant patient since June 2008 in India with a history of HCV contracted probably contracted before the start of dialysis, post-transplant diabetes, a long-term general condition impairment that has been hospitalized for increased impairment of the general condition with ascites, in whom the clinical and Para-clinical examination was in favor of a decompensated cirrhosis at stage CHILD B9 in relation to an HCV. In front of this chart, a treatment combining Sofosbuvir 400 mg/lisipavir 90 mg (1 tablet per day) for 12 weeks was undertaken because it was the treatment that was available at that time in the country. Under this treatment, the clinical evolution was marked by a rapid improvement of the general condition, a regression of ascites. The evolution under treatment of clinical and biological parameters is shown in Table 1.

Tolerance to anti-HCV therapy was excellent and no adverse effects were observed. Given the serious complications of chronic viral hepatitis C in the general population, in patients undergoing chronic

hemodialysis and/or who have undergone transplantation and other factors in view of the socio-economic standard of living in our developing countries we recommend:

The cost of treatment subsidy allowing thus the treatment of a large number of patients.

The availability of reliable generic drugs of direct acting antivirals.

The implementation by medical practitioners of recommendations on the management of viral hepatitis C published by the World Health Organization (WHO).

Parameters	Week 0	Week 4	Week 8	Week 12	SVR* 12
<b>General condition</b>					
Asthenia	Yes	Yes	No	No	No
Nausea	Yes	No	No	No	No
Ascite	Yes	Yes	No	No	No
Headache	No	No	No	No	No
HCV RNA (UI/ml)	524045	<15	<15	<15	<15
HCV RNA (Log)	6.72	<1.2	<1.2	<1.2	<1.2
Platelets (/mm <sup>3</sup> )	92000	80000	82000	96000	120000
White Blood Cell (/mm <sup>3</sup> )	4100	5000	48000	4800	4400
Neutrophil (/mm <sup>3</sup> )	767	2575	1709	1800	1399
Hemoglobin (g/dl)	10.2	10.9	9.5	10.2	11
AST (UI/l)	196	46	43	44	45
ALT (UI/l)	69	28	29	28	44
Creatinin (mg/l)	13.7	15.6	14	13.9	15.6
Rate of prothrombin (%)	42	67	53	54	70

\*Sustained virologic response 12 weeks off therapy

**Table 1:** Evolution under treatment of clinical and biological parameters.

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