Treatment outcomes of direct-acting antiviral (DAA) therapy among chronic kidney disease (CKD) and post kidney transplant patients with hepatitis c virus (HCV) infection: Single center experience

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Background: Hepatitis C virus (HCV) infection is common among chronic kidney disease (CKD) and kidney transplant recipients. Direct acting antiviral (DAA) regimens has been demonstrated to be effective with high sustained virological response (SVR) rates and tolerated in the general population. Data is limited and remains to be confirmed among CKD and kidney transplant recipients.

Objectives: The study aims to investigate treatment outcomes of DAA therapy among CKD and kidney transplant patients with hepatitis C infection. Specifically, it seeks to describe demographics, determine SVR rates, changes in laboratory values, and adverse effects with DAA therapy.

Methods: The study employed a retrospective observational study design. It included all cases of CKD and kidney transplant recipients with chronic HCV infection who are >18-year-old on DAA Therapy at National Kidney and Transplant Institute, Philippines from December 2015 to December 2016. Descriptive analysis of treatment outcomes, changes in laboratory values, and adverse events.

Results: Twelve patients were included, 7 (58%) CKD and 5 (42%) kidney transplant recipients. All patients (100%) had SVR 12. Changes in laboratory values during treatment included; (1) mean increase in creatinine of 0.3 mg/dL vs 0.04 mg/dL, (2) mean decline in hemoglobin of 2 mg/dL vs 1.5 mg/dL, in platelet of 18 x 10^3/uL vs. 7 x 10^3/uL, in ALT levels of 31 U/L vs 27 U/L, and in bilirubin 0.5 mg/dL vs 0.12 mg/dL in CKD and post kidney transplant recipients respectively. One (8.3%) kidney transplant recipient had disorientation but did not lead to treatment discontinuation.

Conclusions/Recommendations: Our study showed an SVR12 rate of 100% in both CKD and kidney transplant recipients. Majority did not experience adverse effects during treatment. Further larger studies are needed to validate our findings.

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