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Elimination of Hepatitis C in Haemodialysis Subjects : Moving in the Right Direction.

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OBJECTIVES

- Early identification and treatment of Hepatitis C virus (HCV) infection among haemodialysis (HD) patients helps World Health Organisation's aim of HCV elimination by 2030.
- Currently HD patients are tested for HCV antibody positivity as a screening for possible chronic HCV infection.
- Percentage of HD patients at Singapore General Hospital tested positive for HCV antibody has dropped from 1.3% to 0.5% over the last 10 years.
- HCV antibody test however can be falsely negative in this group of immunocompromised dialysis patients.
- Our previous study¹ showed that HCV antigen test has high specificity and sensitivity in diagnosing HCV infection.
- We study the use of HCV antigen to identify HCV infection in HD patients with negative HCV antibody.

METHODS

- End stage renal failure patients who were undergoing HD at SGH between October 2021 and June 2022 were screened and recruited for the study.
- Blood samples were tested for HCV antibodies using ARCHITECT anti-HCV assay and HCV antigen using the ARCHITECT HCV antigen assay.
- HCV antigen is considered reactive if the antigen concentration is greater or equal to 3.00fmol/L.

RESULTS

- 250 patients were recruited for the study.
- 1 patient were excluded as the HCV antibody was positive with a detectable HCV RNA.
- There were 159 male patients.
- Median age of the patients was 63 (IQR 14).
- Mean ALT level was 28.1.
- HCV antigen was non-reactive in all patients, indicating absence of false negative HCV antibody in our study cohort.

CONCLUSIONS

- HCV antigen test did not identify any HCV infection in our cohort of potentially immunocompromised HD patients.
- Current strategy of periodic HCV antibody testing among HD patients is an effective way of identifying patient with HCV infection in line with goals towards achieving HCV elimination by 2030.

REFERENCES

1. Kumar R, Chan KP, Ekstrom VSM, et al. Hepatitis C virus antigen detection is an appropriate test for screening and early diagnosis of hepatitis C virus infection in at-risk populations and immunocompromised hosts. J Med Virol. 2021 Jun;93(6):3738-3743.

CONTACT INFORMATION

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