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A Younger Demographic Defines Hepatitis C Patient Profiles in the Recent Direct-Acting Antiviral Era

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A Younger Demographic Defines Hepatitis C Patient Profiles in the Recent Direct-Acting Antiviral Era

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Background:

Highly effective and safe direct-acting antivirals (DAAs) against hepatitis C virus (HCV) combined with U.S. Preventive Services Task Force recommendation to screen for HCV in individuals born between 1945 and 1965 (age cohort; 54-79 years of age in 2019) was expected to reduce the number of actively infected patients via identification and treatment. Nevertheless, HCV infections remain a significant health concern. A study of HCV infected patients in our urban internal medicine practice, during the interferon era and prior to the introduction of DAAs, demonstrated a population within the age cohort. The objective of this study was to characterize the current patient population seen in the same practice with respect to age, race, and treatment status to determine the impact of DAA therapy on patient profiles and to test the hypothesis that there would be an increase in younger population among those infected.

Methods:

Using electronic medical records, we identified patients who presented to our urban GI practice in 2019. Data collected from patient charts included demographics, liver function tests, HCV genotype, viral load, imaging studies, and treatment history.

Results:

There were 601 patients with HCV seen in 2019 and the majority were African American (AA) (85%) and male (66%). Comparison of age alongside gender and race revealed that non-AA patients (51 years, SEM = 0.9) were significantly younger than AA patients (63 years, SEM = 0.4; $p < 0.001$). The younger patients were predominately female in the non-AA group (Figure 1). In contrast to the management of HCV patients in the interferon era exclusively by gastroenterologists, patients in 2019 were seen and treated by both gastroenterologist (73%) and infectious disease specialists (27%). There was no racial disparity among AA and non-AA patients with respect to treatment status, with 25% having achieved a sustained viral load prior to 2019 and 25% starting treatment in 2019 (Table 1). Half of AA and non-AA patients were not started on any treatment in 2019. Further examination found that only 9 AA and 1 current non-AA patients were subsequently treated through July of 2020. The extent to which the COVID-19 pandemic influenced these numbers remains to be evaluated.

Conclusion:

The primary shift in patient demographics as compared to the interferon era has been toward younger, non-AA females. In contrast, the predominant AA patients are still within the age cohort. The emergence of younger patients has important implications for screening, patient outreach, and treatment plans. A more intensive evaluation for risk factors and the role of COVID-19 in treatment is warranted. Many AA and non-AA patients were not started on any treatment in 2019, signifying a need for continued follow-up after initial visit to close the linkage to care gap.

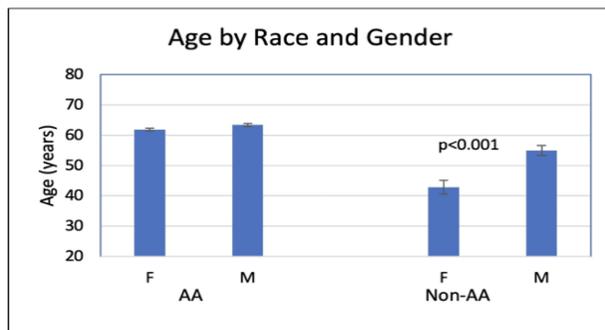


Figure 1: Age of patients with HCV plotted by race (AA vs non-AA) and gender. Non-AA patients were younger than AA patients due to the significantly younger age of non-AA females.

| Treatment Status | AA | | Non-AA | |
|--|--------|-----|--------|-----|
| | Number | % | Number | % |
| Sustained viral load (SVR) prior to 2019 visit | 122 | 23% | 19 | 22% |
| Treated but no SVR prior to 2019 | 4 | 1% | 2 | 2% |
| Treatment in progress at 2019 visit | 14 | 3% | 1 | 1% |
| Treatment started in 2019 | 124 | 24% | 22 | 25% |
| Treatment not yet started | 249 | 49% | 44 | 50% |

Table 1: Treatment status comparison between AA and non-AA patients.