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EDITORIAL – HEPATOBILIARY TUMORS

Overcoming Treatment Disparities for Early-Stage Hepatocellular Carcinoma in the Veteran Population: Is the MISSION Act the Solution?

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Hepatocellular carcinoma (HCC) is characterized by a growing incidence worldwide, a low resectibility rate, a high recurrence rate after curative-intent treatment, limited response to medical treatment, and an overall poor prognosis. However, the staging and treatment of HCC has evolved dramatically over the last decades. The Barcelona Clinic Liver Cancer (BCLC) staging and treatment algorithm has been widely adapted and is the standard of care.[1] The variety of treatment options in our armamentarium highlights the complexity of HCC care, which requires robust institutional infrastructure and the availability of specialty care, including medical oncology, radiation oncology, surgical oncology, and abdominal transplant. Treatment of HCC is best implemented by an experienced multidisciplinary team that can optimally select patients for resection, transplantation, ablation, transarterial chemoembolization (TACE), and systemic therapies with immunotherapy or tyrosine kinase inhibitors, all being evidence-based treatment options.[2] The best treatment for each patient depends on the stage of the disease as well as the overall health of the patient.

Liver disease in general and HCC more specifically are immensely prevalent in the veteran population; yet it remains unclear as to whether treatment algorithms deviate from BCLC guidelines within this national health system. Polanco and colleagues utilized the VA Corporate Data Warehouse to identify patients diagnosed with early-stage HCC (stage I and II) between 2001 and 2015. Using an intention-to-treat design, patients were divided in three groups consisting of curative treatment (surgical resection, ablation, or liver transplantation), noncurative treatment (TAE/TACE or systemic chemotherapy) and no treatment. Just over 9,500 patients were included in the study. The authors describe the overall trends of treatment utilization during the 15-year study period and identified an overall increase in treatment utilization, but with a significant decrease in the rate of curative-intent treatment. Logistic regression models were then utilized to identify factors associated with receipt of treatment versus no treatment and curative intent treatment versus noncurative intent treatment. Stage II disease, age >65 years, presence of NAFLD, Child-Pugh C, higher MELD score, thrombocytopenia <100 k/mm^3, low hospital complexity score, and Southwest region were associated with significantly higher rates of no treatment. Hispanic race, lower hospital complexity score, Midwest, West, or Southeast regions were furthermore associated with significantly decreased utilization of curative-intent treatment.[3]

The authors should be commended on a well-designed and methodologically sound, retrospective, cohort analysis. Studying the veteran population with the goal to improve health care delivery to this vulnerable patient population, which is known to have a higher burden of comorbid conditions, coupled with poor compliance and inadequate follow-up, is paramount.[4] This work nicely highlights how an improved screening program within the VA system has enabled more veterans to be diagnosed with and receive care for HCC. However, it also disappointingly revealed that only 19% of patients receive curative-intent treatment. This is a notable difference compared with national civilian data, where approximately 40% of early-stage HCC patients received curative intent treatment.[5,6] The authors

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identified the above-listed system- and patient-specific factors associated with this trend, which is exceptionally important information needed to implement future changes.

The authors appropriately acknowledged various limitations and challenges within the VA system, including the 5-level VHA Facility Complexity Model and the variable affiliation with academic centers. In certain regions, these factors could explain the discrepancies in treatment utilization between different VA facilities as well as the VA system and the community. However, we would like to introduce the concept of the ''treatment stage migration'' strategy, which allows moving to another treatment (generally the one that is associated with the subsequent BCLC stage) if the approach linked with the current stage proves to be unfeasible.[7] In our opinion, this concept is particularly relevant in the veteran population given the above outlined higher burden of comorbidities. Many veterans, due to medical reasons, may not qualify for curative-intent treatment, which involves liver resection or transplantation, and therefore were shifted into a higher-stage treatment algorithm. In other words, some patients with early-stage HCC may be considered for embolic or systemic therapy, as options of higher priority may not be feasible.

The VA MISSION Act of 2018 was designed to empower Veterans and enhance care options with the goal to improve internal and community care coordination through one optimized, customer-service network. In the analysis by Polanco et al., the high rate of no treatment could not be explained by veterans seeking care outside the VA system. However, the study period was before initiation of the MISSION Act. Therefore, this may have impacted the care of veterans with HCC during the past 5 years. We hypothesize that the MISSION Act has allowed VA patients and providers to overcome the logistic barrier of coordinating the multidisciplinary care by improving accessibility to specialists within surgical oncology and radiation oncology. A follow-up study focusing on the trends and changes in HCC treatment after implementation of the MISSION Act could be an excellent validation of this program. To our knowledge, there are currently no published studies that have analyzed the impact of the MISSION Act on veterans' accessibility to care for any disease.

Overall, Polanco and colleagues have demonstrated in their analysis of the VA Corporate Data Warehouse, the underutilization of curative-intent treatment options for patients with early-stage HCC, and the disparities within the VA healthcare system. In our opinion, the VA MISSION Act, implemented in 2018, offers solutions to the logistic barriers of HCC care within the VA health system. Therefore, it is anticipated that a follow up study with more contemporary data could show different trends in the future.

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