Severe periodontitis predicts higher cirrhosis mortality
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Background and Aims: Periodontitis is prevalent in patients with cirrhosis and may lead to systemic infections which are strong risk factors for the patients’ high morbidity and mortality. Our aim was to determine the association of periodontitis with all-cause and cirrhosis-related mortality in a prospective cohort study.

Methods: A total of 184 patients were enrolled consecutively and followed for one year. Blood samples, sociodemographics, and disease-related data were collected, and a detailed clinical oral examination was performed. Severe periodontitis was defined by standard criteria comprising 2 or more sites with clinical attachment level of 6 mm or more on different teeth and 1 or more sites with probing depth of 5 mm or more. All-cause and cirrhosis-related mortality was recorded. The association of periodontitis with mortality were explored by Kaplan-Meier survival plots and Cox proportional hazards regression adjusted for age, gender, cirrhosis etiology, Child-Pugh score, Model of End-Stage Liver Disease score, smoker status, present alcohol use, comorbidity, and nutritional risk score.

Results: The total follow-up time was 74,197 days. At study entry, 44% of the patients had severe periodontitis. Nearly half of the patients died during follow-up. Severe periodontitis was associated with higher all-cause mortality (crude hazard ratio (HR) 1.56, 95% confidence intervals (CI) 1.06-2.54 and adjusted HR 1.45, 95% CI 0.79-2.45). Severe periodontitis was even stronger associated with higher cirrhosis-related mortality (crude HR 2.19, 95% CI 1.07-4.50 and adjusted HR 2.29, 95% CI 1.04-4.99) (Figure 1).

Conclusions: The presence of severe periodontitis predicted higher all-cause mortality ascribable mainly to cirrhosis-related mortality. Periodontitis may act as a persistent source of oral bacterial translocation causing systemic low-grade inflammation and more cirrhosis complications. Our findings may motivate intervention trials on the effect of periodontitis treatment in patients with cirrhosis.

Disclosure of Interest: None Declared